

Nation's Business

A MAGAZINE FOR BUSINESSMEN

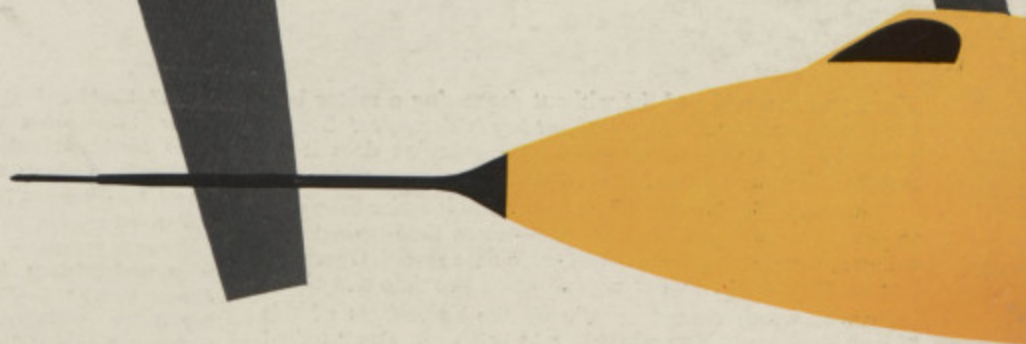
DECEMBER 1953

THE
NEXT


FIFTY YEARS OF
POWERED
FLIGHT
PAGE 25



FILE COPY
Do not remove



adler

Now! each key  its own motor bar...

...saves
up to 50%
hand motion

LIVE KEYBOARD

National adding machine

Now, you can add and list without depressing a motor bar! On this new National *every amount key is electrified!* Simply press the keys you want to add—the machine does it instantly! *You save up to 50% hand motion.*

National's "feather-touch" action makes it easier than ever to press two or more keys at once—more time-saving! All ciphers print automatically—still more time saved! Operators like it—they do their work with so much less time and effort.

Printed words cannot explain all the advantages of this "Live" Keyboard. You must see it to believe it. See it today! For demonstration phone the nearest National office or National dealer

"Live" Keyboard *plus* 8 other time-saving features combined only on National: Automatic Clear Signal • Subtractions in red • Automatic Credit Balance • Automatic space-up of tape when total prints • Large Answer Dials • Easy-touch Key Action • Full-Visible Keyboard, Automatic Ciphers • Rugged-Duty Construction.

now you
can forget
the motor bar!

TRADE-MARK REG. U. S. PAT. OFF.

National

ADDING MACHINES • CASH REGISTERS
ACCOUNTING MACHINES

THE NATIONAL CASH REGISTER COMPANY, DAYTON 9, OHIO

MONEY MODULE

The First and Only Employee-Benefit Plan Specially Designed for Small Business Firms

MONEY MODULE

is a Completely New Multiprotection Plan

In one package, it offers various combinations of:

1. Retirement pension for the employee.
2. Death benefits for his dependents.
3. Income to his widow to supplement Social Security.
4. Disability income for the employee.
5. Hospital and surgical benefits for the employee and his family.

The word "module" means "unit." MONEY MODULE is made up of basic units of insurance and pension benefits. It's a "build-your-own, unit-by-unit" plan giving you an appropriate combination and amount of benefits. You pay only for the benefits you choose.

Until the invention of MONEY MODULE, there was no comprehensive employee-benefit plan specially designed for small groups. Group insurance and annuities—as conventionally used by larger organizations—do not adequately meet the need in a smaller firm. And retirement plans for small groups using regular retirement policies are often inflexible and expensive.

Yet a good employee-benefit plan is one of the most important assets of any company. It keeps employee morale high, makes people proud of the company they work for, reduces costly turnover, and gives workers a feeling that they count as *individuals*—all of which are good for productivity.

Now, these advantages are no longer enjoyed exclusively by large firms. For, with MONEY MODULE, you can meet the larger companies on their own ground—offer employees benefits *even more attractive than those your competition offers*, at a price you can afford!

It's often possible to cover employee groups of as few as 10 to 25 people. And MONEY MODULE employee-benefit plans have been installed at costs ranging from 5% to 10% of payroll. In some cases, part of this cost has been covered by employee contributions.

Electronic "Brain" Makes MONEY MODULE Possible

New electronic equipment handles the complex "paper-work" of this amazingly flexible plan so speedily and so efficiently that MONEY can pass on to you the resulting savings and benefits of unit construction!

Check These Important Advantages of MONEY MODULE

1. Costs less! More benefits for less cost than other plans for small business firms.
2. Saves administration costs! Use of new types of electronic equipment makes policy issue, additions, and administration possible at low costs.
3. Covers older employees! Older em-

ployees can be given adequate benefits without undue initial heavy investment!

4. Unit costs grow smaller as plan grows larger! Because of its unique structure, MONEY MODULE can *reduce* the unit cost per person as the average size of the benefit per person and number of lives covered increase.

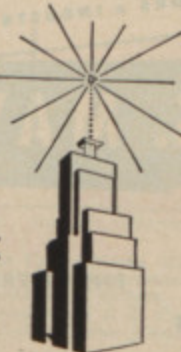
FLEXIBLE • ADAPTABLE • ECONOMICAL • EFFICIENT

SEND FOR FULL DETAILS—TODAY! Mutual Of New York is the *only* life insurance company that offers this unique plan. Let a MONEY representative show you why it is the most beneficial, most flexible, most inexpensive employee-benefit plan ever offered to smaller business firms. Just mail the coupon.

MUTUAL OF NEW YORK

"FIRST IN AMERICA"

The Mutual Life Insurance Company of New York



MUTUAL OF NEW YORK

NB

Broadway at 55th Street, New York 19, N. Y.

I'd like to find out more about MONEY MODULE—and what advantages it offers me and my employees.

Name _____ Title _____

Company Name _____

Type of Business _____ No. of Emp. _____

My fiscal year ends _____

Address _____

City _____ State _____

It's **RESULTS** that count

Read how **MAY Methods** helped this Detroit firm

- 1 REDUCE COST OF MATERIALS 14%**
- 2 REDUCE OPERATING EXPENSES 11%**

COMMERCIAL CONTRACTING

Corporation

GENERAL CONTRACTORS

12160 CLOVERDALE • DETROIT 4, MICHIGAN • PHONE TEXAS 4-7400

George S. May Company
205 Wacker Drive
Chicago, Illinois

July 18, 1952

Gentlemen:

Your company made a survey of our operations during the period of July 25, 1951 through November 17, 1951. Shortly thereafter you created a procedure plan for the various departments of our organization. In applying these procedures in certain departments over a period of months, we are favorably impressed with the results.

You will be interested to know of the savings effected in following your procedure. As an example, your suggestion to centralize the buying in a purchasing department has resulted in a savings of 14% in actual costs of materials purchased and a savings of 11% in operating costs. This we feel is important, but what really impresses us is the efficiency gained in the operation of this department despite an unusually high rate of growth in our business since the date of your survey.

Very truly yours,
COMMERCIAL CONTRACTING CORPORATION

A. D. Beveridge
A. D. Beveridge
President & General Manager

ADB/dh

MACHINERY MOVERS • PRESS ERECTORS • INDUSTRIAL INSTALLATIONS

*"You've Got
to Spend Money
to Make Money"*

GEORGE S. MAY COMPANY



Business Engineering

CHICAGO 6 • ENGINEERING BUILDING

NEW YORK 17 • 122 EAST 42nd STREET

SAN FRANCISCO 2 • 291 GEARY STREET

CANADA • 660 ST. CATHERINE STREET, WEST, MONTREAL, QUEBEC



nation's business

PUBLISHED BY
CHAMBER OF COMMERCE OF THE UNITED STATES

DECEMBER 1953 VOL. 41 NO. 12

Editor
Alden H. Sypher

Adm. Assistant
Ruth D. Howard

Executive Editor
Paul McCrea

Assistant Editors
W. Lee Hammer
William W. Owens
Kenneth W. Medley
Donald C. Spaulding
Elizabeth B. Coleman
Paul Hencke

Art Director
Ralph Patterson

Adm. Assistant
Mary W. Davis

Associates
Asdur Takakjian
Charles Dunn

Business Manager
John F. Kelley

Circulation Manager
Floyd C. Zeigler

Advertising Director
Orson Angell

- 9 Management's Washington Letter
- 12 By My Way R. L. Duffus
- 17 The State of the Nation Felix Morley
- 21 Washington Mood Edward T. Folliard
- 25 Aviation's Next 50 Years
- 26 As Science Sees Them Alfred Steinberg
- 28 As Industry Sees Them Richard Tregaskis
- 30 There's Fun and Millions in Toys Albert Morehead
- 32 Seven Who Guide Our Destiny Anthony H. Leviero
- 34 It's Social, But It's Not Security Leonard J. Calhoun
What you get at retirement depends on changing law
- 36 Uncle Sam Muscles In on Crime's Payoff Sam Stavisky
- 37 Highways Win Their Cold War Wilfred Owen
Here's why you don't put away your car in winter
- 40 How's Business? A Look Ahead
By the staff of the Chamber of Commerce of the U. S.
- 42 Dogs Put Teeth in Store Protection Bill Slocum
Bite of these canine watchmen is worse than their bark
- 45 Letters to the Editor
- 48 Taft-Hartley, Taxes, Social Security—And Elections, Too
Returning congressmen face a busy schedule Don Young
- 58 Cold Bread is Hot News Paul W. Kearney
- 64 Quick Dollars Thaw Frozen Assets Stanley Frank
Business uses a development of factoring
- 74 Tax Timing Can Save You Money Walter Ross
- 85 Electricity's Goal: Three Times as Much Paul Hencke
- 86 The Sheriff Goes to School Fred B. Barton
- 88 Army Sells More Surplus
- 89 NB Notebook
- 92 Look Beyond the Scare Stories

MORE THAN 750,000 SUBSCRIBERS

GENERAL OFFICE—U. S. Chamber Building, Washington 6, D. C. BRANCH OFFICES—New York, Chicago, San Francisco, Cleveland, Detroit.

As the official magazine of the Chamber of Commerce of the United States this publication carries notices and articles in regard to the Chamber's activities; in all other respects the Chamber cannot be responsible for the contents thereof or for the opinions of writers.

Nation's Business is published monthly at 1615 H St. N.W., Washington 6, D. C. Subscription price \$18 for three years. Printed in U. S. A. Entered as second-class matter March 20, 1920, at the post office at Washington, D. C.

Nation's Business is copyright, 1953, by the Chamber of Commerce of the United States.

NATION'S BUSINESS · DECEMBER 1953

ABOUT THIS ISSUE

IT IS a practice around our shop for the art department to make rough sketches of cover ideas and then call in an illustrator to turn out the finished product. But practice took a holiday in the making of this month's cover.

Here's what happened.

After deciding that the cover should depict the past, present and future of powered flight—a subject discussed at length elsewhere in this issue—we asked our staff artists to bring in some roughs. The preliminary sketches submitted by **ASDUR TAKAKJIAN** were so pleasing that he was told to carry the cover through to completion.

The cover is the first for Mr. Takakjian, or "Tak," as we know him here at NATION'S BUSINESS. He has other nicknames. Around Ocean-side, Long Island, where he grew up, he is called "Tick." With "Tick" and "Tak" already on the list he realizes that it is only a matter of time before some wag adds "Toe."

He is of Armenian extraction, by the way, and his first name is a contraction of "Asdvadzadour" which means "Gift of God."

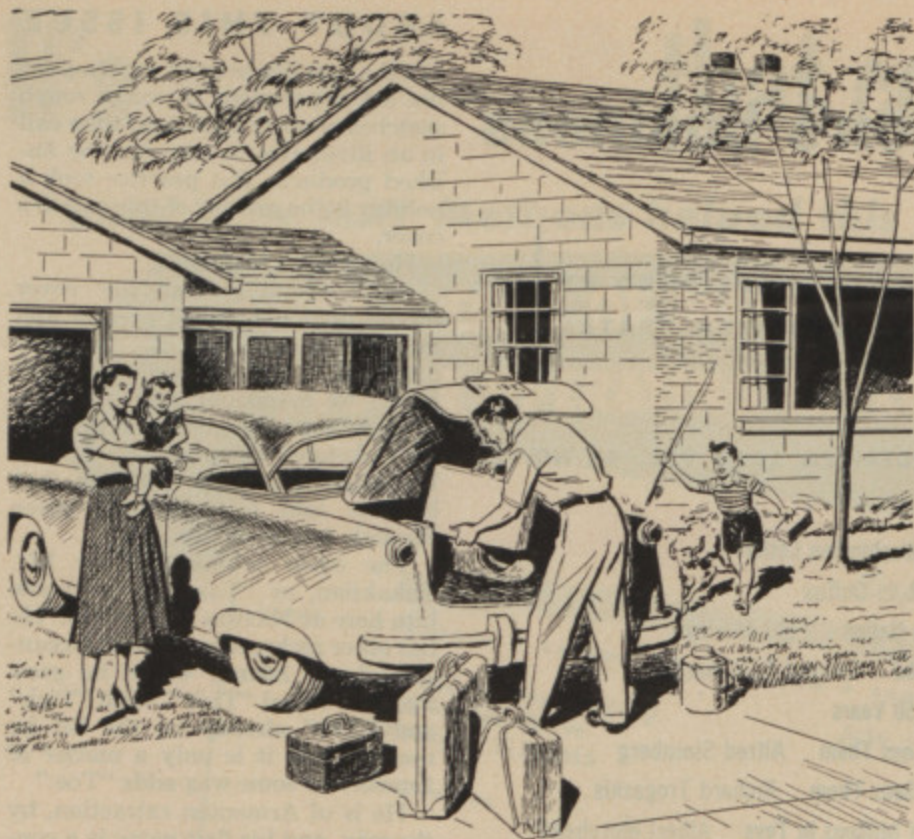
In his own quest for an effective cover, Tak found that aircraft design is an excellent yardstick for measuring the progress which has been made in aviation.

"For example," he tells us, "the fragile blue figure in the cover is the plane in which Orville Wright made the first successful powered flight on Dec. 17, 1903. It represents the beginning. The needle-like nose of a contemporary Douglas Skyrocket stabs into the cover from the right. That's the present. The dominating gray shape was drawn from imagination and by research into the silhouettes of rockets, airplanes and guided missiles—as a hint of what might be coming in the future."

After graduation in 1950 from Pratt Institute in Brooklyn, Tak worked in the art departments at *McCall's* and *Esquire*. He joined the staff of NATION'S BUSINESS in 1952.

Tak is proud of the elaborate high-fidelity phonograph which he recently had installed in his Washington apartment. The instrument has seven speakers and he says it has given an exciting new dimension to his hobby of listening to recorded classical music. His love for music is manifested in another way, too. In his free time he serves as a personal representative for his sister, Felice, a concert pianist.

ALFRED STEINBERG, who wrote "Aviation's Next 50 Years: As Science Sees Them," didn't have to



Have a Safe Trip, Folks!

You've awaited this trip with mounting excitement. Now, as you stow away the luggage and round up the family, you're anxious to be off.

Remember, though, most roads were designed for yesterday's traffic. You'll find narrow lanes, steep hills, sharp curves, short sight distances. Drive accordingly. *Have a safe trip, folks!*

Wherever you go you'll be safest on concrete roads. At night light-colored concrete reflects light. You can see farther so you get more time to act in case of danger. Dark-colored pavement absorbs light. *If you can't see you can't be safe!*

Concrete's gritty, skid-resistant surface grips tires firmly, enabling you to stop fast in emergencies—even in the rain. Concrete's low crown and freedom from ruts and washboard ripples spare you other driving hazards.

Yes, night or day, rain or shine, you're safest on concrete. Your license fees, gas and other taxes pay for roads, so put safety first. Insist on the safety pavement, portland cement concrete.

PORTLAND CEMENT ASSOCIATION

33 West Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work

go far to find an atmosphere conducive to writing about aviation. His nine-year-old son, Arne, is a bug on building model airplanes. Papa Steinberg helps.

The product of this father-and-son enterprise is evident in the photograph which shows Mr. Steinberg demonstrating a model plane to his brood at the Steinberg home in Oxon Hill, Md. The onlookers include the author's wife, Florence; daughters Polly and Lise, and Arne, the young "aerodynamicist."

Mr. Steinberg is 35 and a native of Minnesota. He says he "drifted



aimlessly" as a child and once spent a summer riding freight cars. Of the latter he notes:

"There is nothing sorrier than a boy who has spent the night in someone else's gondola."

Since graduation from the University of Minnesota he has been a contributor to a host of magazines and newspapers. Mr. Steinberg currently is at work on two books dealing with politics.

LEONARD J. CALHOUN got interested in social security in 1935 when called to Washington to take a temporary job on the staff of the Senate Finance Committee.

When the Finance Committee finished with the social security legislation and it became law, he went over to the new Social Security Board as assistant general counsel instead of returning to his law practice in Jackson, Miss.

After working out the original social security regulations, he was placed in charge of writing new social security legislation until he entered the Navy during World War II.

At the conclusion of his naval service he served the House Ways and Means Committee as head of a special technical staff established to study the social security system. Its comprehensive report, "Issues in Social Security," still is regarded as a basic analysis.

Since 1946 he has practiced law





The Precious Gift of Speech

One of the precious gifts of life is speech. From babyhood on, it is the bridge to understanding, friendship and love.

There was a day when the power of speech was limited by the range of the human voice. Now there are no barriers of time or distance. You have but to speak into the telephone to be in touch with almost anyone—quickly, easily and at low cost.

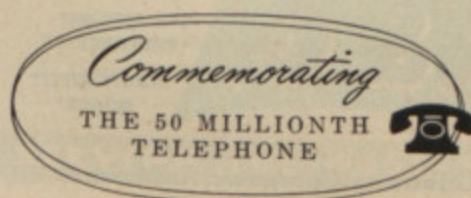
Just a few days ago the number of telephones in the United States reached fifty million, or one for about every three people.

These telephones are operated by the Bell System and fifty-three hundred other telephone companies.

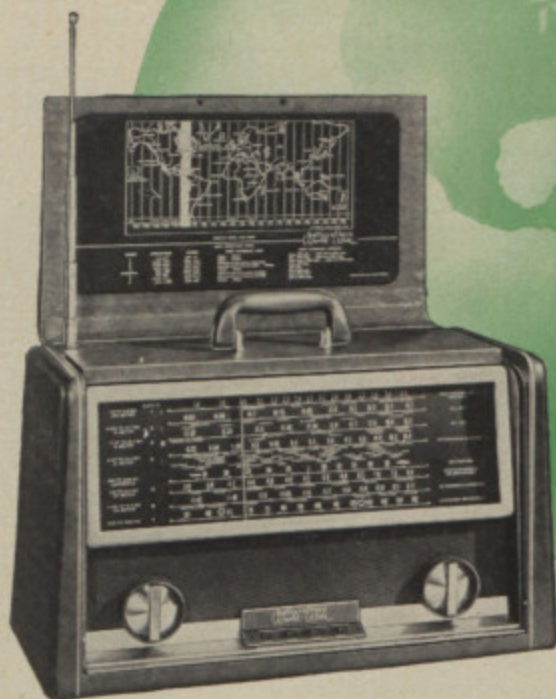
All play an essential part in the nation's service and they join together in commemorating this new milestone in telephone progress.

The big story is not in mere numbers but in what all these telephones mean to the country.

By the quick interchange of news and views, the telephone has united millions of people. By its services for industry and the armed forces, it has become a front-line soldier in defense. The lines of communication that help the nation to grow also bind it together to keep it strong.



BELL TELEPHONE SYSTEM
AND FIFTY-THREE HUNDRED
OTHER TELEPHONE COMPANIES



Short waves travel long distances

London . . . Rome . . . Hongkong . . . Sydney . . . the whole wide world is the back yard of the family with a short-wave radio receiver.

Hallicrafters precision equipment, made in Chicago, is used in 89 countries and by 33 governments. A pioneer in the field of short-wave electronics, the company this year marks its 20th anniversary. The skills and experience that have made Hallicrafters a leading manufacturer in short-wave radio stand be-

hind its "new-dimension" television receivers as well.

For many years U. S. F. & G. has had a part in Hallicrafters' development by providing a variety of essential bonding and insurance coverages.

Whether you produce precision equipment, sell goods or services, own your home or business; no matter what you do, there are U. S. F. & G. coverages to meet your needs.



Over ten thousand agents . . . there's one in your community.
Consult him as you would your doctor or lawyer.

U.S.F. & G.

CASUALTY-FIRE
INSURANCE
FIDELITY-SURETY
BONDS

United States Fidelity & Guaranty Company, Baltimore 3, Md.
Fidelity Insurance Company of Canada, Toronto

in Washington, D. C., while maintaining his interest in social security.

In 1952, when the International Labor Organization worked on an international treaty on social security, Mr. Calhoun was sent to its meeting in Geneva, Switzerland, as a member of the American employer delegation, and was made chairman of the International Employer Social Security Committee and vice chairman of the General Social Security Committee.

Mr. Calhoun graduated from the University of Virginia Law School, "where I picked up a Phi Beta Kappa key and some old-fashioned ideas." He refers to himself as an arch-conservative and unreconstructed rebel.

"I always say it first," he explains, "then nobody gets mad."

WILFRED OWEN, who writes about highway snow removal in this issue (see page 37), had a firsthand experience with the

subject in 1947 when a blizzard piled drifts on the private road leading to his home in Fairfax County, Va., not far from Washington.



Lack of snow-removal equipment left Mr. Owen and family stranded in their country retreat for more than a week. It is significant, perhaps, that they moved not long after the snow incident.

Mr. Owen is eminently qualified to write on the subject of snow removal, roads, and transportation in general. As a senior member of the staff of the Brookings Institution in Washington he has written and co-authored numerous works on the subject of transportation, including "National Transportation Policy," published in 1950.

In addition, he has done research and written on such problems as the nation's supply of raw materials, and contributes a monthly column to an aviation magazine.

Mr. Owen served in the Air Force for three years during World War II. He was born in Birmingham, England, and came to this country with his parents at the age of three. The subject of Birmingham is one of importance to him. Professor Gilbert Walker of the University of Birmingham, reviewing a book on transportation problems written by Mr. Owen, observed in a British journal: "It is evident that there is a vast difference between the King's English and the President's American."

"That statement of Professor Walker may have some bearing on

my attempt to enliven writings on subjects which can become quite dull in the telling," Mr. Owen comments.

In any event, Mr. Owen took Professor Walker's comments in good-natured stride. So much so that the two men have since engaged in a friendly exchange of letters. In one letter, Mr. Owen asked the professor to look up the old Owen homesteads in Mosley and Edgbaston (sections of Birmingham) and report what changes had affected them in the years that the Owen family had been away in America.

Professor Walker filled the request and added this jocose observation: "A man who gets on lives in Mosley. A man who gets honor moves to Edgbaston and a man who gets honest moves away."

A graduate of Harvard University in 1934, Mr. Owen has been on the staff of The Brookings Institution since 1946. In the past he also has served as a consultant to the Port of New York Authority and as an economist for the National Research Council and the National Resources Planning Board.

One of Mr. Owen's principal avocations is sailing, a sport which he enjoys on summer vacations at Nantucket. He and his wife have three children—two daughters, ages two and four, and a son who is eight years old.

WALTER ROSS is an old hand at writing about taxes. His latest contribution is on page 74.

For two years he teamed with J. K. Lasser in writing a large number of articles about taxes. He has held editorial jobs with national magazines and has written extensively for others.

Mr. Ross' usual home is in Manhattan, where he lives with his wife, son and daughter. During the week he works in a Manhattan office, a



place he forsakes on week ends for "an old house on a sand cliff overlooking Long Island Sound about 100 miles east of New York."

Consider the MO-PAC EMPIRE...for your new plant!

EVERYTHING INDUSTRY
NEEDS...from manpower
to markets...is available in
the rich, productive area
served by MISSOURI PACIFIC.
*In addition to sheltered
security, your industry
will enjoy:*



PREFERRED PLANT SITES: Our Industrial Development Department can help select your new plant location in an area best suited to your needs.

LABOR: A reservoir of skilled and unskilled labor is available.

WATER: There's a wealth of water...ground or surface...in most areas served by MO-PAC.

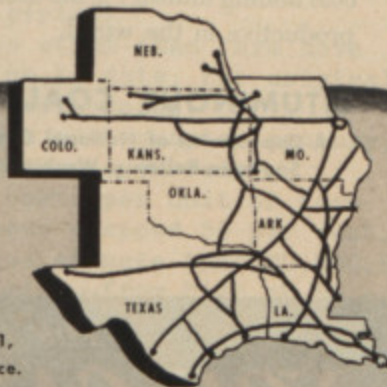
FUEL: You'll find coal, oil and natural gas in economical abundance.

RAW MATERIALS: Timber, minerals, agricultural products, chemicals...are at the doorstep of most plant sites you may select.

TRANSPORTATION: Our swift diesels can speed your products to market quickly, dependably...or to any one of eleven principal Gulf ports and the Rail Gateways to Mexico—Brownsville and Laredo, Texas.

**MISSOURI
PACIFIC
LINES**

FOR COMPLETE INFORMATION: write or wire
... Industrial Development Dept. Missouri
Pacific Lines, 1706 Missouri Pacific Bldg.,
St. Louis 3, Missouri; or Union Station, Houston 1,
Texas. Your inquiry will be kept in strict confidence.



SERVING THE WEST-SOUTHWEST EMPIRE

COAL SAVES 30% OVER OIL!

"When we remodeled our Reading power plant, we had two good solid reasons for choosing coal as our fuel.

"First, producing steam with oil would cost us up to 30% more than coal burned the modern way.

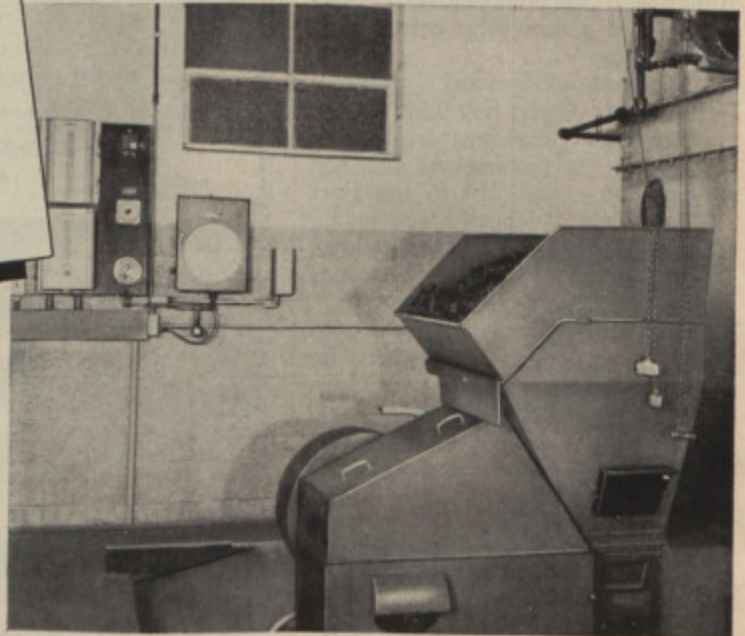
"Secondly, if we burned oil, a mechanical or electrical failure could shut us down tight. With coal, even if our single stoker broke down, we could hand-fire and keep going.

"For dependable low-cost steam, we're convinced this coal-burning installation is our best bet."

Additional case histories, showing how other types of plants have saved money by burning coal the modern way, are available upon request.

"By burning coal instead of oil, we save up to 30% on fuel costs and enjoy trouble-free operation!"

says C. R. Crowther, Vice President
Reading Glazed Paper Corp.
Reading, Pennsylvania



Here's a tip that can save you dollars on steam costs. Equip your plant with a modern coal-burning installation designed to fit your specific needs.

You'll find modern combustion equipment has made coal more economical than ever before. You'll find that up-to-date coal and ash-handling equipment will cut your labor costs and provide you with a clean, convenient, dust-free operation.

And only with coal can you be sure of a plentiful supply of fuel at relatively stable prices—now and far into the future. Coal, unlike other fuels, has virtually inexhaustible reserves. And America's highly mechanized coal mining industry is the most efficient and productive in the world.

BITUMINOUS COAL INSTITUTE

A Department of National Coal Association
Southern Building, Washington 5, D. C.

If you operate a steam plant, you can't afford to ignore these facts!


BITUMINOUS COAL in most places is today's lowest-cost fuel, and coal reserves in America are adequate for hundreds of years to come.

COAL production in the U.S.A. is highly mechanized and by far the most efficient in the world.

COAL prices will therefore remain the most stable of all fuels.

COAL is the safest fuel to store and use.

COAL is the fuel that industry counts on more and more—for with modern combustion and handling equipment, the inherent advantages of well-prepared coal net even bigger savings.

FOR HIGH EFFICIENCY  FOR LOW COST

YOU CAN COUNT ON COAL!

► THERE'LL BE NO business slide next year if states have their say.

That picture takes shape from "Nation's Business" U. S.-wide survey now under way.

Of states reporting so far 29 have definite plans to continue and expand employment, production during coming year.

Only three states report no programs for '54. They're agricultural.

Most reporting states already have active industrial promotion boards—and they're widely spread, with New England, Middle Atlantic states and Far West heading the list.

► HOW YOU BUY counts in your profit picture, too.

One manufacturer points out saving of 5 to 10 per cent in cost of purchases is equal, in many cases, to 2½ to 5 per cent of sales dollar.

Example: Let's say firm does \$500,000 annual business, earns 10 per cent on its sales dollar.

Sales boost of \$100,000—or 20 per cent—would add \$10,000 to profit column.

But same firm spends half its sales dollar on purchases.

So, if better purchasing can save 4 per cent—or \$10,000—the result is the same profitwise.

Note: Trend to establishment of purchasing experts in top management bears out executive thinking in this area.

► BUSINESS TRENDS begin at home.

It's easy to find out how activity shapes up in your community.

These indicators are on your Main Street:

Banker: Loan policies, deposits, repayment picture, Christmas Club savings volume.

Mayor (or town clerk): Vital statistics, community improvement plans, tax collections.

Department store manager: Sales, inventories, store traffic, credit applications.

Police chief: Traffic flow in business district, parking meter collections, car registrations.

Utilities manager: Gas, electricity consumption, new meter installations.

Phone company manager: New phones,

switchboard load, bill collections.

Postmaster: Mail, parcel post load, money order, stamp sales.

Food store manager: People eating more and better? What's average housewife's bill?

Newspaper editor: He's got his finger on the pulse, knows prospects for future business, industry, employment, payrolls.

This list's just a starter. Add hardware, toy stores, appliance, car dealers, restaurants, theaters, sporting goods outlets, others that can help fill in details you need in your planning.

► SIGNS POINT to good business—outdoor ad signs, that is.

Outdoor advertising industry reports 5,000 companies (80 per cent with four or fewer employees) will turn out more than \$265,000,000 worth of electrical signs this year.

Firms use 133,000 tons of carbon steel, 5,430 tons of stainless steel a year—but 80 per cent of outdoor panels are still made of wood.

What sparks optimism for '54?

Continued boom in road construction program—federal and state—plus huge upsurge in auto travel, longer vacations, multitude of new products, new materials to brighten signs.

► FARM PARITY RATIOS face government overhaul.

That's if idea now in works gets Congress' OK next year.

What prompts move: Growing dissatisfaction in some economic circles with formula based on prices and production of 1910-1914 period.

Most indices other than farm have been brought up to date, but original farm formula still holds.

Meanwhile, in past quarter century, these changes have occurred:

Production costs per unit of farm output have been chopped 30 per cent.

Disappearance of more than 20,000,000 farm work animals—from high of 26,000,000 plus in 1915. That's released about 55,000,000 acres for food production.

When parity was set, farmer worked 106 hours to produce 100 bushels of wheat. Today he harvests 320 bushels in

same time. Average productivity boost is more than 50 per cent per acre.

Tractors save up to 17 hours a week in human labor.

► **MINIMUM WAGE HIKE** is likely to be among first congressional acts next month. Probable new base figure: \$1.00 an hour.

Top White House strategists see action needed to calm labor restiveness.

How'll labor react?

Few workers earn less than new suggested minimum now, so increase won't have big over-all effect.

Their leaders will continue to rely on individual contract negotiations to effect other gains.

► **FIRMS PAY MORE** to keep labor force happy.

Rise: \$12.67 per worker. That's personnel administration cost increase.

Figures are average of 165 companies in 42 states. They employ from 125 to 40,000 employees.

Costs per worker: In 1952, \$48.59; this year, \$61.26.

► **BOARD DIRECTORS** get wage hike, too.

Survey of more than 200 manufacturing firms shows directors who received \$20 a meeting in 1938 now get from \$50 to \$500, plus expenses.

Three per cent of firms stick to \$20 figure but one third pay \$100 and 16 per cent pay \$50.

► **"OLDER WORKER"** IS STILL big part of labor force.

That's evident from retirement figures compiled at Department of Labor.

Retirement trend grows after 55, but more than 50 per cent of men stay on the job until they're near 70.

Studies show 92 per cent of men 55 to 59 remain at work.

Proportion drops to 85 per cent for men 60 to 64 and to 60 per cent for those 65 to 69.

Rate falls to 27 per cent for those 70 and more.

Note: Same general rate holds for women, but they're smaller part of labor force in each age group.

► **WHAT DOES UNEMPLOYMENT** in this country of 1,250,000 mean?

Not that this many people are chronically jobless.

By the time Bureau of Labor Statistics compiles the figures most are back at work—but some others are out.

Practically two thirds of all jobless are out of work for a month or less, Bureau says.

Total of 34.5 per cent are out of work from five to more than 26 weeks, but only 56,000 are jobless more than half a year.

Note: 38.8 per cent are out of work for only one or two weeks.

► **TREASURY MAY BROADEN** fast tax write-off program.

That's in works now—sparked by two New England states (Massachusetts, Connecticut).

Write-offs are now limited to defense expansion and plants putting in bomb shelters.

Plan would be extended to include rapid amortization for nondefense industrial development corporations—so communities could attract small, diversified industry.

Massachusetts wants remodeling of old buildings in labor surplus areas included as part of new plan for rapid amortization.

► **TYPICAL NEW CAR** buyer is well off.

Even with auto credit at record high (more than \$10,000,000,000), it's less than a third of durable goods expenditures (\$31,000,000,000), only one twenty-fifth of disposable income (\$250,000,000,000).

Major finance company finds typical new car buyer earns \$400 to \$450 a month, pays average \$79.16 a month on car, owes initial \$1,944, pays it off in 24 months.

In used car field: About 76 per cent of buyers earn \$400 or less a month. But many earn more than \$600.

Typical purchaser earns \$300 to \$350, signs note for \$935. He'll pay it off in less than 18 months with payments averaging \$52.97.

Note: Autos are as much a necessity as most durable goods—their "luxury" days are long past.

► **SHORT-RANGE LOOK** at inventory, sales ratio stirs apprehension.

Manufacturers' new orders, as ex-

washington letter

ample, took seasonal dip of \$1,493,-000,000 in recent period.

But for same period last year drop was \$1,582,000,000—didn't arouse wild alarm.

Over-all, inventories are up this year (including pre-Christmas retail stocks) by about \$4,000,000,000.

Total sales of manufacturers and wholesalers and retailers are up \$2,-585,000,000 over '52.

Inventory-sales gap actually has widened \$1,000,000,000 or less over past three years.

In same time, personal income has jumped from \$255,000,000,000 to \$287,-000,000,000 (before taxes)—gain of \$32,000,000,000, or more than \$10,000,-000,000 a year.

Long-range view supports belief that rising income can easily erase inventory—if it's spent.

► HOME REPAIR is comfortable cushion in construction field.

That's view of builders generally, who look for slight drop-off in new building next year.

They say public's bill for remodeling, repairs has tripled in 10 years. It's over \$12,000,000,000 this year.

And they add: Of 44,000,000 homes in U. S., more than half are more than 30 years old, 20 per cent are more than 20 years old.

► IF PROMOTION STOPS, business falls off.

That's axiom of market place, but recent sales study points up problem sharply.

Example: Average brand product loses 12 per cent of its customers each year—if it just sits on the shelf.

Result: You'll be out of business on that product in eight years unless efforts are made to replace 12 per cent (or boost it) each year.

► WHERE TO SELL is vital—as well as how to sell.

Population is big topic in industry councils—how many people, where they are, where they're going.

Added market: U. S. shows boost of 16 per cent in past decade—or 20,000,000 people.

That's nearly one and one half times total population of Canada.

And forecasters say we'll add another Canada, population-wise, by 1960.

Biggest increases are in West and Florida (with 49.6 per cent jump).

Arizona leads nation with 53.3 increase, while California's third with 47.7 per cent.

Note: While population's on rise, productive labor force shrinks.

Job hunters of next six years were born in low birth rate period of '30's and early '40's.

Result: Lower ratio of new producers to new consumers. This accounts, in part, for fast-moving technological research.

► RETAILERS WOO husband-wife shopping team.

National sales group has come up with figures showing man and wife spend more if they shop together than either does separately.

Here's how: In food store, for example, husband alone spends average \$5.30. Wife alone spends \$6.14.

Together they'll spend \$8.92.

Exceptions: Hubby-wife won't spend as much together, ordinarily, in men's store or woman's specialty shop.

Note: "Team" shopping sparks trend to night store hours.

► BRIEFS: U. S. Chamber of Commerce 18-city survey shows that a single parking space produces at least \$20,000 of annual retail sales in cities under 100,-000. . . . Most mass retailers do about 70 per cent of week's business in about 25 per cent of store-open hours. . . . Average farm workweek is 51.7 hours, in nonagricultural jobs it's 38.4. . . . Some management advisers say industrial productivity could be stepped up as much as 30 per cent without additional plant or equipment if management spent more time and money on employees. . . . Engineers report 28 per cent of present production equipment, manufacturing processes are obsolete, need immediate replacement. . . . Electrical industry survey reveals average salesman wants accurate product description, facts—not fancy pep talks. . . . Modern times: despite all the new mechanical writing equipment, the old-fashioned lead pencil still accounts for 90 per cent of all writing instruments made in the U. S.



Mystery of the missing envelope!

● The missing envelope held the office postage... Should have been in the top left drawer of Mr. Jones' desk, but it wasn't. Nobody in the office had it, or had seen it. So Sally had to gallop to the postoffice and buy more stamps... Next day the envelope turned up in his brief case.

"Nuts!" said Mr. Jones. "Let's get a DM, and we'll always know where the stamps are."

● With the DM (desk model) postage meter, you always have postage available. The meter is set for as much postage as you want to buy; registers show the amount on hand, and the amount used. Postage in the meter is safe from loss or damage.

● You always have the right stamp value... the DM prints the postage needed for any kind of mail directly on the envelope. Prints postage for parcel post on special tape. Has a moistener for sealing envelopes. Anybody can use it.

● The DM gives even the smallest office the convenience of metered mail... saves time and postage. Other models for larger mailers. Ask the nearest PB office for a demonstration, or send coupon.

FREE: Handy chart of Postal Rates with parcel post map and zone finder.



PITNEY-BOWES
Postage Meter

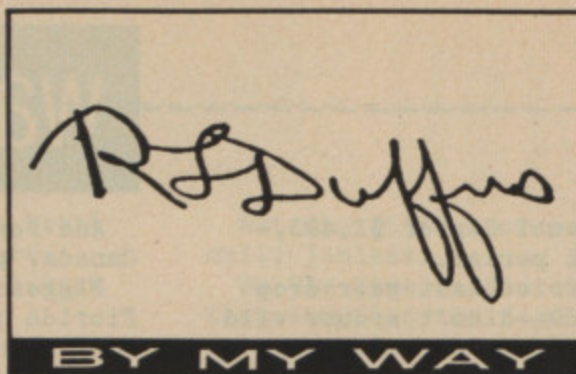
Offices in 93 cities in U.S. and Canada

PITNEY-BOWES, INC.

1395 PACIFIC ST., STAMFORD, CONN.

Please send free ☐ booklet, ☐ Postal chart to:

Name _____
Address _____



A thought about traffic

I ALWAYS come back from a motor trip with a new generalization—assuming, of course, that I come back at all. My latest observation is that few persons are qualified to drive safely above a certain rate of speed; that those who are so qualified don't; and that those who are not so qualified do. We got back unscarred—perhaps because there was not much traffic where we were when I was driving.

Lawyers all

THERE is a town in New York State called Lawyersville. It looks peaceful and prosperous to the casual passer-by. I suppose the inhabitants live by suing each other for damages or something. All in a pleasant and neighborly spirit, of course.

For sale: antiques and such

WHEN we drive around we are always impressed by the number of things offered for sale along the roadside. On our recent journey we made note of the following: beagle puppies; one or more Angus bulls; turkeys, eggs, guinea hens or, indeed, a whole poultry farm; apples, pumpkins, jellies, jams, honey and, if we had been so inclined, a hive of honey



bees. We might also have bought or stolen a bear or deer, for bears were on view, though in cages, and we saw a number of spots on the road labeled as deer crossings.

There were antiques, too. There always are antiques. Some of these antiques—take an old-fashioned oil-burning lamp, for instance—were

not so considered when I was a promising youth. We got to wondering how old a human being had to be to be regarded as an antique. We got to wondering—or rather, I did—if I was an antique. In the early morning I often feel like one, though toward evening I become quite spry and chipper.

For beauty's sake

ONE of the pleasantest things one sees in driving around New England, upper New York State and, of course, other American regions, is the groups of trees—most often elms or maples—planted along roads and in front of farm houses. These trees had no economic use or purpose, except as the maples might occasionally produce a little sap that could be made into sugar. They were planted to please the eye, to rest the spirit. They were a sort of architecture, set up for beauty's sake just as much as was the Parthenon. When some persons say America is materialistic, and always has been, I feel like mentioning those trees, from which such an immaterial profit was drawn—and is still derived.

Wanted: a stack o'bucks

IN PENN YAN we went around the wrong turn by mistake but thought it worth while when we came upon what the sign said was the old buckwheat mill. If I'd had some maple sugar, a half pound of butter and some coffee with me I'd have gone inside and asked for some buckwheat cakes. If that combination wasn't digestible I wouldn't be here now—I once ate 20 buckwheat cakes at a sitting. (I don't do this nowadays, any more than a man who has once climbed Mt. Everest goes on doing it.)

Soil vs. character

IN ADMIRING the autumnal beauty of New York State's Finger Lake district I was not, as I hope, treasonable to the state of my birth,

Vermont. One can admit the charm of a field of cabbages—and we saw many such—without wishing to be a cabbage. (Parenthetically, I am surprised that no poet has arisen to sing of cabbage patches as eloquently as poets have sung of fields of corn and wheat.) I cheerfully conceded that parts of central New York have richer soil than any in Vermont. In doing this, however, I wish to remind my readers that the loftiest varieties of human character, unlike cabbages, do not flourish on the richest soil. The New York State character, while not bad as human character goes, is not as good as the Vermont character. It is only fair to say, of course, that few characters are.

The good old roads

HALF the advantage of the great modern superhighways, I've decided, is the fun a person can have by leaving them to folks in a hurry and exploring the older roads. These older roads, in case one is not in a hurry but just wishes to drift around, offer all sorts of chances to see the country. In fact, you don't see the country if you travel through it on a perfect highway; you usually miss the quiet little towns, the old farmhouses with their somewhat less old silos, the grazing cattle, the scuttling hens. The ancient question, "Why does a



hen cross the road?" has no meaning in relation to superhighways. A hen wouldn't cross a superhighway. It wouldn't want to be on the other side, because it still wouldn't know which side it was on.

August is still warmer

SCIENCE says (and a very talkative thing science is, considering all the work it has to do) that the climate of the Northern Hemisphere is growing warmer. I believe this, because I believe practically everything science tells me, but I believe it with more effort in December than I did in August.

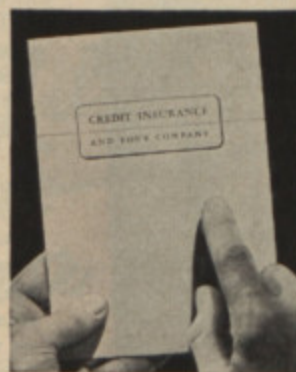
Milk is still from cows

WHEN my brother and I were in college we had, for a time, a milk route. In fact, we had two. For a while we drove the milk wagon, drawn by an internal combustion en-

The prime purpose of American Credit Insurance is to guarantee the value of Working Capital invested in Accounts Receivable.

There are twelve major contributions that American Credit Insurance coverage makes to maximum sales efficiency and sound financial management.

OUR booklet gives essential facts about these important benefits quickly and simply. May we mail you a copy? Phone our office in your city or write **AMERICAN CREDIT INDEMNITY COMPANY of NEW YORK**, First National Bank Building, Baltimore 2, Md. Just say, "Mail me book, offered in *Nation's Business*."



Credit Insurance is a Credit Tool... It is never a Substitute for a Credit Department



American Credit Insurance



... but I can't use
10 hats at a time!

• Of course no one buys and wears ten hats at a time.

The picture is used because it pretty well illustrates the situation that would confront most businesses if it weren't for truck service.

Now the retailer—and manufacturer or wholesaler for that matter—doesn't have to tie up his capital in huge inventories, or buy expensive warehouse space. He buys *smaller shipments, more often*—and he can get fast replacement of out-of-stock items by truck. As a result, he carries more *lines*, and the goods are up-to-the-minute in freshness, fashion and salability. This is true in the smallest hamlet as well as the big metropolitan centers. This *freedom to buy—when he wants and in the quantities he needs*—has benefited him and his suppliers and his customers.

Next time you're in a store of any kind, note the *variety* of items offered for sale. Truck service gives you a greater choice . . . just as it brings everything within reach of everyone, everywhere. *If you've got it...a truck brought it!*



AMERICAN TRUCKING INDUSTRY

American Trucking Associations, Washington 6, D.C.

gine called a horse, for a local dairy. Later we looked after a cow or two for a fellow student during vacation, and, as I recall, toted the milk around on foot. Our feet, I mean, not the cows'. I thought of those simple days as we drove in central New York State and began to meet the big milk trucks whizzing toward the Big City. There was nothing bucolic (which my dictionary says comes from a Greek word related to *cow*) about those trucks.

In every land

AS CHRISTMAS draws near I sometimes think of the many places my wife and I have been on our travels. We have broken no records but we've covered the United States pretty well; one fourth of Alaska; two corners of Mexico; Guatemala; Bermuda; the southern strip of Canada, from ocean to ocean; Britain; France; Italy; a bit of Switzerland; a fraction of Spain; some of Ireland. We've flown, and gone by



train and by ship, and we've motored and ridden in buses. We've never visited the Far East or the Near or Middle East; we don't know Germany, East or West, or Scandinavia; we've never been in a Russian satellite country or in Russia itself. Still, we've been around a little, here and there, and in our memories is a great deal of scenery.

Now, at Christmastime, I think of Christmas Eve and Christmas Day passing over all that scenery, and blessing it, as the earth rolls. I suppose we may think of any new day as starting at the International Date Line in the Pacific Ocean, at about 180 degrees of longitude, and proceeding westward around the world. It is Christmas on India's coral strand before it is so in the United States; and travelers westward-bound around the globe may come up to the Line on Christmas Eve and, because they have to set their watches ahead a full day, never have any Christmas at all.

But let us not worry about my astronomy or navigation, which is probably wrong, but about the Christmas spirit. One can have that in snow or under palms, in any ocean, in any civilized land.

And here's wishing it to everybody around!

THE ILLUMINATING CORP.
1672 E. FIRST AVE
NEW YORK 2, N.Y.

Mr. Good Customer

DON'T LET A DINGY WINDOW MISREPRESENT YOU

Don't let a semi-transparent window come between you and your customers. About a dollar more per thousand envelopes gives you acetate windows—sparkling clear and meaning business. Just specify acetate in your next order. Celanese Corporation of America, Film Department 143-L, 290 Ferry Street, Newark 5, New Jersey.

Canadian affiliate, Canadian Chemical Company, Ltd., Montreal and Toronto.

Celanese*

TRANSPARENT FILMS

*Reg. U. S. Pat. Off.

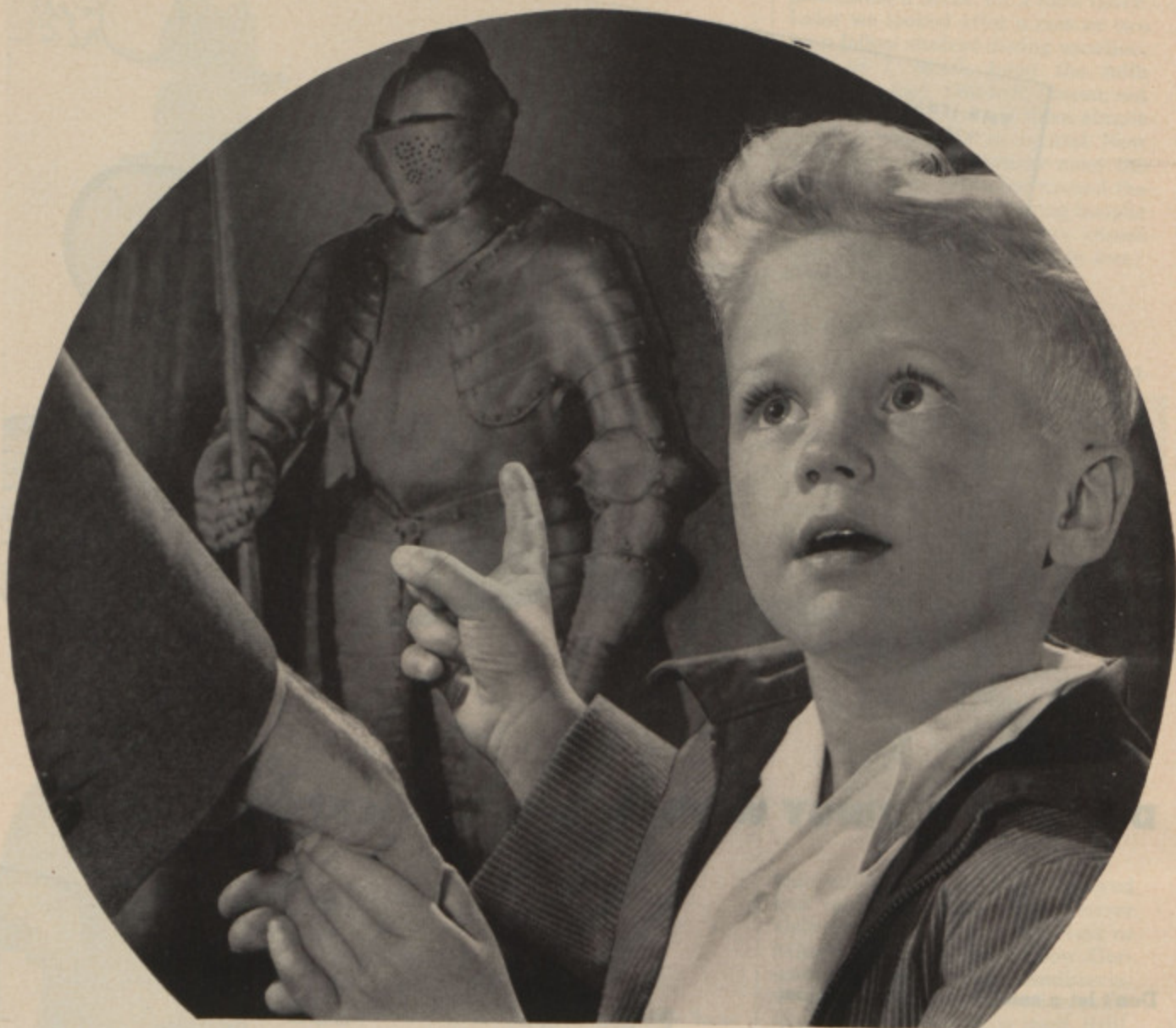
ask

for

Celanese*

Acetate windows





"LOOK, DAD, THAT'S REAL PROTECTION!"

"YOU bet it is, Mike. Ages ago man protected himself with armor. Now, about the only place you see one of those 'suits' is in a museum."

Today, your employees need a different type of protection—24-hour, 'round-the-clock *insurance* protection offering financial security and peace of mind.

Your friendly Hardware Mutuals representative will gladly tell you about protection for your employees—*workmen's compensation insurance* covering on-the-job injuries, and *group accident and health insurance* covering

off-the-job accidents or illnesses. He'll explain our loss prevention service that eliminates accident hazards.

Hardware Mutuals *policy back of the policy*® assures prompt, fair claim handling—friendly, nationwide, day-and-night service—and financial stability. More than \$110,000,000 in dividend savings have been returned to policyholders.

For complete details, call *Western Union*, ask for *Operator 25*, and say you'd like the name and address of your nearest Hardware Mutuals representative.

Insurance for your AUTOMOBILE...HOME...BUSINESS

Hardware Mutuals.

Stevens Point, Wisconsin • Offices Coast to Coast

HARDWARE MUTUAL CASUALTY COMPANY • HARDWARE DEALERS MUTUAL FIRE INSURANCE COMPANY

OF NATION'S BUSINESS Trends

THE STATE OF THE NATION



BY FELIX MORLEY

NO ASPECT of the current recovery of Western Germany is more remarkable than the care and foresight with which its great cities are being rebuilt. At the heart of this revival there is a quality of municipal pride that cannot be measured in economic or statistical terms.

The extent of the damage inflicted on these German cities by "carpet" bombing has all been tabulated. We know that in what is now the Federal Republic approximately 2,500,000 dwelling units were either completely pulverized or damaged beyond possibility of repair. We know also that in the four years ending this month almost 1,750,000 dwelling units have been built in this area, about 25 per cent more than have been constructed in Britain and France together during the same period. Of course the wartime destruction, and therefore the need for reconstruction, was much less in the latter two countries.

The statistics show that the German cities, which were from one half to three fourths wiped out, have now replaced about 70 per cent of that residential destruction. This figure, however, does not take into account the population increase resulting from the huge influx of refugees from Soviet-controlled territory. This has raised the prewar population of many West German cities by as much as ten per cent. Therefore it can be figured that these municipalities are now on the average rebuilt to the point where they are meeting approximately two thirds of the present housing need.

Personal observation this past summer and fall,

in 20 different German cities from Hamburg to Munich, confirms the statistical evidence. As compared with 1949, when the currency was stabilized and planned reconstruction got under way, these municipalities appear to be more than half rebuilt. Given a continuation of present pace of construction, and continued peace, one may therefore conclude that in another four years, or by the end of 1957, the scars of war will have been practically effaced in Western Germany.

• • •

This does not mean, however, that these great cities will look as they did before the war. In all of them disaster has been turned to good advantage by extensive replanning to offset extensive destruction.

Thus, in Hamburg, a completely obliterated industrial area has been redesigned as a public park. At this point whole blocks of workers' flats were practically leveled to the ground. The bricks have long since been collected and removed for use elsewhere. Then the foundations were covered with top soil. Now the recently planted trees and bushes are taking hold.

Another illustration is found in the medieval part of Frankfurt, completely obliterated by a huge incendiary bombing attack during the night of March 22-23, 1944. In this section was the patrician house where Goethe was born, the beautiful red sandstone cathedral of St. Bartholomew and the thirteenth century Nikolaikirche, overlooking the

Roemerberg — the big square surrounded by high gabled buildings where the populace gathered and the public foun-

tains gushed wine when the electors met in Frankfurt to choose the old German emperors.

All this medieval city went with the wind of the last war. But the old buildings are now being rebuilt stone by stone, and carving by carving, according to detailed architectural drawings which were made before the bombings started. There is, however, one substantial difference between the old and new designs. While the exteriors will be exact replicas of the destroyed buildings the interiors are being completely remodeled and modernized to give efficient accommodation to various branches of Frankfurt's municipal government.

In addition, broad, new, curving streets, cutting through what was once a maze of old alleys, have been laid down to make the Altstadt easier of access for motor traffic. Here and there an obliterated block, where the buildings had no particular historic or architectural interest, has been resurfaced as a municipal parking lot or public square. One can already see that the eventual effect will be to restore much of the charm, while eliminating most of the inconvenience, of the medieval city.

The same well balanced consideration is apparent in the reconstruction of industrial and commercial plant. To obtain the bank credit necessary for financing, every permanent building of this character must conform with an over-all city plan, determining location as well as height, proportions and external design.

These rules, however, do not apply to temporary structures. A merchant who lacks capital, but sees a chance to get a small business under way, can put up almost any sort of wood or concrete shack amid the ruins to display his wares. Plenty of these huts are still spotted about, giving a curious frontier aspect to the downtown sections of the West German cities. But, as capital accumulates, the temporary buildings are being rapidly replaced. Along many of the principal streets there is now scarcely any sign of war destruction, even though parallel thoroughfares, a block or so away, remain as masses of utter ruin.

Interesting in itself, the redevelopment of the West German cities is a thought-provoking indication of what is possible anywhere in the field of intelligent urban reconstruction. In Germany it has been necessarily a matter of rebuilding from scratch, and in some respects that has made the problem of city planning easier. But to be leveled by bombs is surely not a necessary prerequisite for the rehabilitation of cities where huge slums and blighted areas are breeding depravity and crime.

From the American viewpoint the most cogent

criticism of German municipal reconstruction is its distinctly authoritarian nature. Whether the issue is one of zoning, traffic control, or pure beautification, a German city council is likely to act with an indifference to affected private interests which would be shocking to most of our merchants' associations. Germans, on the other hand, are equally shocked to discover that civic pride in an American city is so often highly localized—that people in well governed suburbs seem to care little about the degradation of other parts of their own town.

Commenting on this American parochialism a student of our municipal development concludes that "no program of urban renewal can hope for more than sporadic achievement that does not provide the mechanism for popular interest, popular scrutiny and popular stimulus and support." The quotation is from an important little book entitled "Renewing Our Cities," just published by the Twentieth Century Fund of New York. It is concerned with the problem of the "dynamic municipality," meaning those in which mere physical growth has created appalling problems of traffic congestion, social maladjustment, physical ugliness and imbalance between "downtown," where people go to work or shop, and suburbia, where all who can prefer to live.

Miles L. Colean, the author of this study of our haphazard municipal development, endeavors "to take a broad view of the problems that cities encounter in maintaining their vitality amid the onrush of population increase and technological changes." Mr. Colean is concerned only with the difficulties of our own American cities, and specific efforts being made to cope with them. But his book has a particular cogency for all—and they include many Americans—who have had opportunity to examine how the devastated German cities have faced up to the same sort of problem, when the issue was one of rebuild or die.

The mind revolts at the thought that the best way to improve a city is to lay it flat and then begin again, from the foundations. Yet the German experience strongly indicates that such drastic method brings into play extraordinary recuperative force. One may conclude, however, that even when it is not called into action by disaster such civic force is present in latent form, among American municipalities no less than German. The current reconstruction of the historic part of downtown Philadelphia confirms the belief.

At present, through the channels of Civil Defense, much energy is going to the protection of our cities as they are. It would seem that the spirit of citizenship animating the CD function could also be mobilized for the defense of our cities from internal decay. If the citizen lets corruption overcome his city, says Mr. Colean, "it is because he has lost the wish or the vigor to maintain it."



"A FAMILY MAN ALWAYS NEEDS CREDIT", says accountant M. J. Lambert. He has paid for many household furnishings and a car with credit union loans which cost him less than carrying charges or other financing. In addition he is protected by life insurance when he borrows from his credit union. If anything should happen to him before he could pay it back, that insurance would pay off his loan.



"OUR CREDIT UNION helps me save", says Nellie Vachunas. "You want to save all you can, too, for the dividends are good". Credit union savings pay better returns than most other kinds. Members may have life insurance equal to savings up to \$1000.

KRAFT EMPLOYEES SHARE \$1,650,000 IN SELF-MADE SECURITY

The men and women of Kraft Foods operate their own credit unions. They benefit from profitable savings and low-cost loans. The company regards this as its most valuable employee activity.



CREDIT UNION DEPOSITORS at Kraft's Chicago plant. Assets of Kraft's 11 credit unions are over \$1,650,000. Credit unions in plants and offices save employee time. More than 16,000 credit unions now serve over 7,000,000 Americans in churches, clubs and communities, as well as in employee groups.



"OUR CREDIT UNIONS have been of great material benefit to both the employees and the company", says J. H. Kraft, Chairman of Board of Directors. "They help employees in times of distress, promote thrift and contribute to employees' morale".



BOARD OF DIRECTORS of the credit union is elected by and acts for the members. The credit union operates at no expense to the company. A wonderful spirit of wanting to help each other prevails in all credit unions. Employees are happier, more efficient workers and less prone to accidents and absenteeism.

CLIP AND MAIL

Dept. NB-9, Credit Union, Madison 1, Wis.
Please send me, without cost, complete information on organizing a credit union.

NAME _____

ADDRESS _____

COMPANY NAME _____

THIS IS FOR YOU. If you are an employee of a company with 50 or more people, you can become a credit union member by joining with your friends at work. If you are an employer, encourage the formation of a credit union in your plant or office. Cut out and mail this coupon now. You'll get full information on how to join or help start a credit union.

AMERICA GREW UP WITH ITS RAILROADS...



A CENTURY AGO, little locomotives like this—brass-bound, diamond-stacked wood-burners capable of pulling only about a dozen small freight cars—did the essential hauling that pushed the American frontier ever Westward to create an empire out of the wilderness.



TODAY'S POWERFUL LOCOMOTIVES—using all the other improvements that have been made in railroading—turn out many times as much transportation service as the old-timers—to meet the tremendous demands of America's growth.

...AND THE BEST IS YET TO COME!

The railroads in this country grew fast—opening the resources of the continent to the uses of mankind. As they grew, agriculture expanded, with the ever-widening markets for its produce. Industry developed as raw materials were easily carried where they were needed—and finished goods were made readily

available at prices which consumers could afford.

The mass market had arrived!

Today railroads are still growing in strength and service—setting even greater standards of efficiency in their operations.

That's why the railroads today haul more goods, more miles than *all* other

forms of transportation combined—and the railroads' average charge for hauling a ton one mile is lower than that of any other form of general transportation.

This is a wonderful, healthy sign for America—for now, as always, better railroads mean more and better goods—a higher standard of living for all!

ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.



You'll enjoy
THE RAILROAD HOUR
every Monday
evening on NBC.



WASHINGTON MOOD

BY EDWARD T. FOLLIARD

PRESIDENT EISENHOWER is beginning to get the blast from his political opponents. For him it is a new and doubtless painful experience, but for Washington it simply means that things are back to normal. Tranquillity, it seems, does not become a vigorous democracy.

The Democrats who have opened fire on the White House are mostly lawmakers with farm constituencies. Thus, Sen. Olin D. Johnston of South Carolina said recently that Ike knew no more about farm problems than "Little Bo Peep." He went on to add:

"The President is a resourceful Alibi Ike. When we ask him to redeem farm promises he says he 'inherited a bad situation.' When a balanced budget is mentioned, he complains that he's got 'to pay some old Democratic bills.'"

"And when, in desperation, we ask him to stay at his desk for a little while and forego extensive golf and fishing trips, he mutters 'doctor's orders.'"

This may seem pretty rough, but it is only the beginning. Politically speaking, we are now in the skirmishing stage, with the all-out bombardment still to come.

All things considered, it is remarkable that the Democrats withheld their fire as long as they did. Two things accounted for their relative passivity. First there was the President's immense popularity. This led many Democrats to conclude that it was smart politics either to praise him or to lay off him. Second, there was Ike's earnest effort to create an atmosphere of friendliness in official Washington. He insisted on inviting Democrats as well as Republicans to his White House luncheons, and also on inviting Democrats to play golf with him at the Burning Tree Club.

Some old war horses in the Democratic Party were beginning to snort their alarm. Back in August, for example, former Sen. Tom Connally of Texas sounded a warning from the side lines.

"The Democrats," he said, "can overdo this business of bragging about their support of President Eisenhower. That sort of thing may be no help in the years to come. Besides, they should make it clear that they will vote for a program on its merits

alone—not because Eisenhower is for or against it."

The growing criticism has resulted from a number of things—the unrest among the farmers, the Republican practice of blaming unfulfilled campaign promises on the Democrats, the stunning election upsets in which Democrats have won House seats in normally Republican districts, and a widespread feeling in the party of Jefferson and Jackson that Ike's honeymoon had gone on long enough.

Also, and very important, is the fact that all House seats and a third of the Senate Seats will be at stake in the 1954 election.

• • •
The Democrats, it may be said, seem confident that they will capture the House and maybe the Senate as well. Their scouts have reported that Ike's popularity graph has been going down, and with it that of the G.O.P. Dr. George Gallup's figures, based on surveys, confirm this.

Republicans still appear to be almost solidly behind Ike; the defections have come mostly from among Democrats who supported him in '52, and also among independents.

It is extremely distressing to many people, so great is their affection for the President, to see him subjected to harsh criticism. There is no use telling them that this is a normal condition of American political life, and that the man in the White House is bound to be a target for the opposition. They don't want to think of him in terms of the other recent occupants, Mr. Truman and Mr. Roosevelt. They feel that he is different, that he is somehow above partisan politics, and that he ought to be treated accordingly.

What about Ike himself? Outwardly, there has been no noticeable change in him. His health is good, he still grins easily, and he shows no signs of getting rattled under fire. He has great confidence in his ability as a leader and in his powers to hold the affection and support of the American people.

Actually, none of our modern-day Presidents has enjoyed criticism, no matter how much they may have tried to laugh it off.

Some may have seemed to have thicker hides than others, but this was only because they were old hands in the political arena and more skillful

at hiding their pain and dealing with their foes.

President Eisenhower had only six months' experience of political warfare be-

fore he landed in the White House; that is, the period beginning with his fight for the Republican nomination in June, 1952, and ending with his election the following November. Even that experience was not too rough. Before that, for nearly a decade, he had known nothing but adulation and acclaim. It might be said, therefore, that he has not had much time or opportunity to develop a heavy armor against abuse.

Still, he must have had a pretty good idea of what lay ahead, of the price he would have to pay if he ended up in the White House. Listening to his speeches, especially the more intimate ones, you gather that he has read quite a bit about his predecessors. He must know, then, about their tribulations—about what a horror the Presidency had become for George Washington before he went back to Mount Vernon and about Thomas Jefferson's bitter description of it—a "splendid misery."

Also, there were the warnings broadcast to him when he was still in Paris with NATO and before he threw his hat in the ring—Mr. Truman's, for example, that if he got into the political cockpit he would have to brave mud, rotten eggs and rotten tomatoes.

It has not yet reached that point with President Eisenhower, and may never reach it. Hardly anybody really dislikes Ike or wishes him ill.

All that has happened so far is that the Democrats have aroused themselves into what the British call the "loyal opposition." They are doing what politicians have done from the early days of the Republic, keeping score and using the deadly parallel—comparing campaign promise with actual performance. Also, they are blaming the "ins" for all the things that Americans feel they have reason to gripe about. This includes situations that grow out of such natural disasters as the drought.

The Democrats, having held the White House for 20 years, were out of practice, so to speak, when it came to pouring it on the "ins." During most of those years they did most of their fighting among themselves. Now they seem to be much more unified, and to be finding it exhilarating to be on the offensive.

They are convinced that the Republicans overdid things in '52, promising too many things to too many people and leading the voters to expect miracles that have not come off. They think that is the real reason for Republican setbacks at the polls this fall.

They are amused to see the change in the Republicans' tactics. They call attention to the sharp contrast between their 1952 arguments aimed at

the farmer and the efforts now being made to pacify him. The G.O.P. argument in '52, they recall, was that the Democrats had been "regimenting" the farmer, making a "political captive" of him, and trying to keep him in thrall with "government handouts" when he really wanted to be his "own boss." Now, they note, influential Republicans in Congress are pleading with Ike to continue much of the old New Deal-Fair Deal farm program already on the books, including the provision for 90 per cent of parity.

The Democrats also get a kick out of the squirming as Republicans try to explain away their failure to balance the national budget. They note that their rivals are now citing the same reason that they themselves cited in '52 for the imbalance—that is, the enormous expense of keeping our armed forces strong and of helping our allies to do likewise. They recall that Ike and other orators in last year's campaign could talk of hardly anything but "waste and extravagance."

The Democrats don't think that Ike can keep his campaign promise of a balanced budget first and then a reduction of taxes. They believe that the budget will remain out of balance for some time, but that taxes will be reduced anyway. And they are prepared to point out that the reductions—the expiration of the excess profits tax and the ten per cent cut in income taxes—were written into the law while Mr. Truman still was in the White House.

One of the things said about President Eisenhower is that his has been a do-nothing administration. There is, of course, an explanation for the absence of frantic action: Ike has most of the thorny issues of the day under study by committees and commissions—agriculture, the tariff, taxes and many others.

How you view this approach may depend on whether it is your party or the other fellow's that is in power. In the '52 campaign, Adlai Stevenson observed that "A wise man does not try to hurry history." More recently, however, he has accused Ike of "government by postponement."

If it is to the advantage of the United States to have the minority party needling the majority and keeping it on its toes, then we are in good shape. The two-party system never seemed more virile.

To a voteless citizen of the District of Columbia, however, one criticism of President Eisenhower seems ill-founded. That is the criticism of his golf-playing. If golf is in the interest of his health—and Dr. Howard Snyder, the White House physician, says it is—then it would seem to be all to the good. Old-timers here remember when Woodrow Wilson lay sick in the White House, and also when Franklin D. Roosevelt was a dying man in one of the great crises of history. They will tell you that there is no greater tragedy or danger for the nation than an ailing Chief Executive.



Owl's-Eye View of GM Proving Ground

Night photo of cars, undergoing endurance test, gives glimpse of just one sector of our 2 1/3-square-mile Milford, Michigan Proving Ground with its 25 miles of every imaginable kind of road surface.

* Tune in—General Motors TV College Football Game of the Week—Every Saturday

World's toughest engineering tests *tell us how good our cars are*

The gleaming streaks of light in this photograph are the head and tail lights of cars—Chevrolets, Pontiacs, Oldsmobiles, Buicks, Cadillacs and their leading competitors in each price class.

They are being pushed round the clock in a 25,000-mile night-and-day endurance test, so that our General Motors engineers can see just how well other makes stack up with ours.

For, in a competitive business like the motorcar industry, you have to know all the facts.

And one of the best ways to find them is to give cars an intensified version of the wear and tear they'd get in normal usage—then dismantle them

and subject each part to precise laboratory analysis to see how well it has withstood the test.

Of course, this competitive endurance run is only one of the many tests we are constantly running off on our huge Michigan Proving Ground.

So—when our engineers say you get a lot for your money in a General Motors car—they're talking road-proved facts.

Yes—in the last quarter century these tests have added up to 140,000,000 miles of experience, contributing to the technological improvements in every Chevrolet, Pontiac, Oldsmobile, Buick and Cadillac. That's why the key to a General Motors car is bound to be your key to greater value.

GENERAL MOTORS



"Your Key to Greater Value—the Key to a General Motors Car"



CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC • All with Body by Fisher • GMC TRUCK & COACH

IN ALL BUSINESS FIGURE-WORK...

Extra savings come with Friden extra thinking

In office and store, factory and shop and laboratory, the fully automatic Friden Calculator performs more steps in figure-work without operator decisions than any other calculating machine ever developed. Automatic thinking ability inherent in Friden design saves personnel time on every figuring chore. Ask your nearby Friden Man to demonstrate Friden applications in your business. *You've never seen a calculator do what the Friden can!* Friden sales, instruction and service available throughout the U.S. and the world. FRIDEN CALCULATING MACHINE CO., INC., San Leandro, California.



THE THINKING MACHINE OF AMERICAN BUSINESS

© Friden Calculating Machine Co., Inc.

AVIATION'S NEXT 50 YEARS

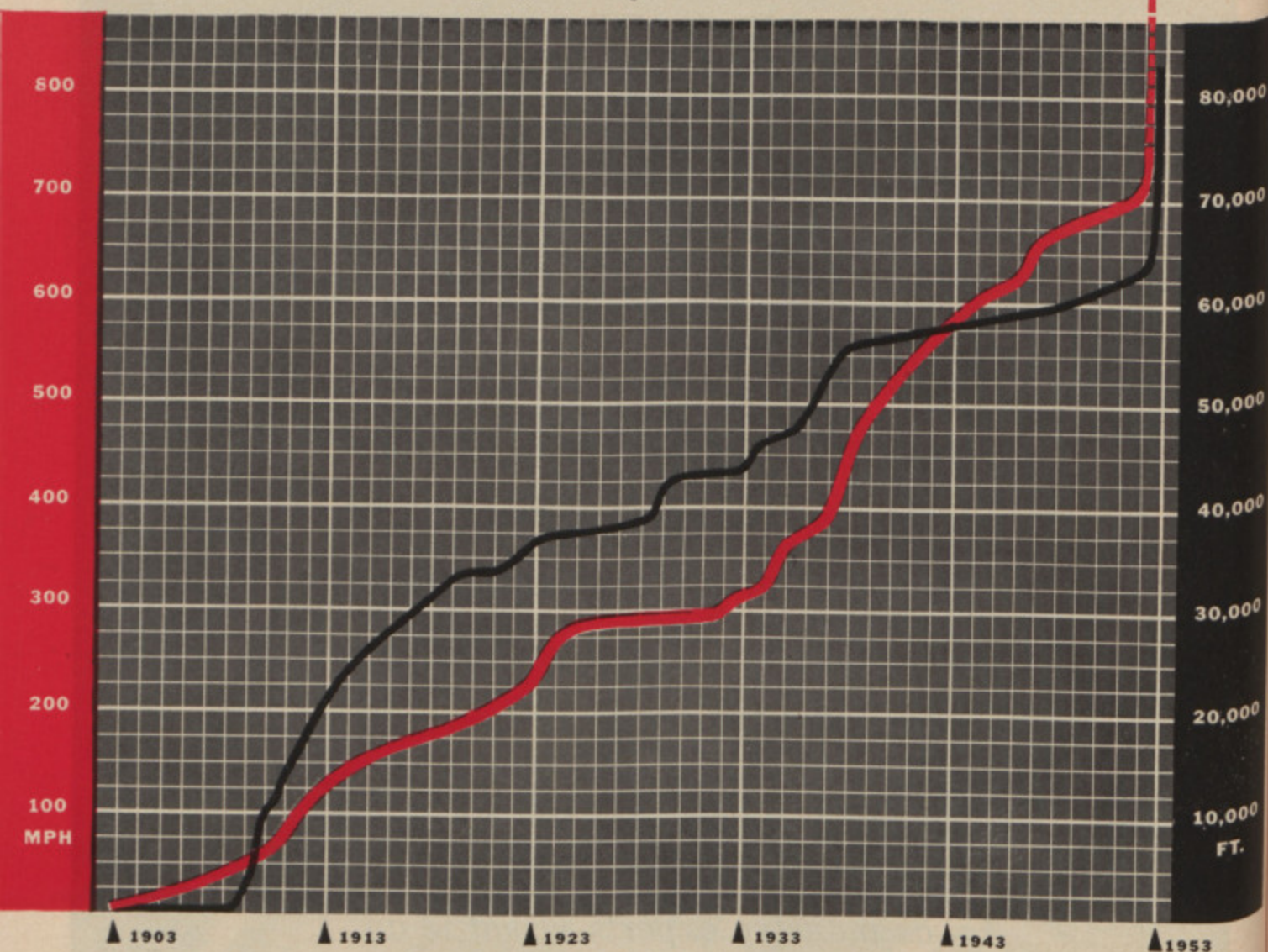


Half a century ago the fashion was to scoff at ideas. The Wright brothers were called "fools who hope to fly." Before them, Stevenson, Morse, Edison had felt similar public scorn. Aviation, while changing world geography, also has done much to change this attitude. Most sciences are hidden from lay comprehension. Aviation's achievements are in the sky for all to see. Looking aloft, men learned to accept progress. Man's first flight left doubters unconvinced, but as part of our heritage from that flight, our reaction is anticipation—rather than ridicule—as industry experts visualize an incredible future.



AS **SCIENCE** SEES

The progress of powered flight in speed and altitude



* Since aviation's earliest days, records for speed and altitude have been broken almost as soon as set. Today speed (in red) stands at an officially admitted 1,238 mph and altitude at 83,235 feet—both in a Douglas Skyrocket

THEM

By **ALFRED STEINBERG**

THE next 50 years of powered flight will make the last seem like slow motion.

Within the next half century, travel time to any place on earth will be negligible.

Even within 25 years, all long distance transport will be at supersonic speeds—at speeds greater than 700 miles an hour.

And travel to the moon is attainable.

These are the optimistic predictions of a scholarly looking man who wears neat blue suits, shiny black shoes and who occasionally preaches from the pulpit of a downtown Washington church. He is Dr. Hugh L. Dryden.

Do his ideas of flight in our future sound farfetched? Let's look at what's happened in the past 50 years. . .

It was about noon Dec. 17, 1903, when a lifeguard ran three miles from Kill Devil Hill, N. C., into the sleepy village of Kitty Hawk and shouted:

"They've done it! They've done it! Danged if they ain't flew!"

Orville Wright, the bristle-mustached younger brother of Wilbur Wright, had just completed man's first powered flight over the flat land at Kill Devil Hill.

His 12 horsepower biplane hit a top speed of 31 miles an hour. Its flight lasted 12 seconds. Altitude was ten feet; flight distance, 120 feet. The "flying-machine" weighed 605 pounds, not counting Orville's 145 pounds or its fuel capacity of two quarts.

Here's the progress in the following 50 years:

SPEED: An officially admitted 1,238 mph in a Douglas Skyrocket and a straight away course record of 754.98 mph in a North American Super Sabre.

DISTANCE: Nonstop around the world, but with in-flight refueling, in a Boeing B-50. Nonstop record without refueling, 11,236 miles in a Lockheed Neptune P2V2.

ALTITUDE: 83,235 feet in a Douglas Skyrocket.

WEIGHT: 358,000 pounds gross weight in a Con-vaire B-36.

FUEL CAPACITY: 21,000 gallons carried in the B-36.

GUIDED MISSILES: An officially admitted 5,000 mph and an altitude of 250 miles above the earth.

Considering where we've come in the first half century of aviation, Dr. Dryden's ideas of planes 50 years hence don't sound too bold. Fittingly, he will have a hand in determining whether his forecasts were too low.

For Dr. Dryden bosses the National Advisory Committee for Aeronautics (NACA), the top government agency plowing into the heady problems of high-speed, high-altitude flight research. Dr. Dryden is an authority on what his fellow aerodynamicists term "turbulence and boundary-layer control," as well as being the man who masterminded the development of the "Bat," the first American guided missile used in World War II.

Basic research on planes to come is going on pell-mell at NACA labs right now, much of it on an around-

the-clock basis. NACA's business is to build up our basic storehouse of aeronautic knowledge which the military and the aircraft industry can apply to specific, new types of planes.

In many fields, Americans are considered tops in applied science, but mere spectators in pure, or basic, science. In international aviation circles, however, NACA activities make us a standout leader in the pure science aspects of aeronautics. Considering that we are in a war for survival against international communism, this is mighty fortunate.

The NACA does not design or build planes. This is the job of the aircraft industry in trying to meet military or civilian plane requirements. To make tomorrow's planes, aircraft manufacturers use the findings of the NACA as their foundation, and then employ thousands of designers and aerodynamicists on the developmental aspects, as well as engineering specialists in electronics, metallurgy, mechanics and related fields. NACA enters the developmental research field only on request.

Nor does it ordinarily get into applied military plane research, such as armaments, flight instrumentation or aeromedicine. Such matters fall into the bailiwick of the military, unless it asks for a hand.

To keep ahead of the military and the industry's demands for basic information, Dr. Dryden runs a far-flung research empire. Under the close scrutiny of a 17 man board of directors, he operates three research centers: the Lewis Propulsion Laboratory at Cleveland and two aerodynamic labs, the Langley Laboratory in Virginia and the Ames Laboratory in California. The Lewis Lab concentrates on increasing knowledge about engines, especially jets and rockets; while the Langley and Ames laboratories work on improving the shapes of tomorrow's planes.

In addition, Dr. Dryden's NACA operates a secret Mojave Desert proving ground at Edwards, Calif., where advanced research planes are flight-tested hush-hushly. Also a sandy, marshy island off the coast of Virginia provides the NACA with a secluded spot from which to blast rocket-powered pilotless missiles out over the Atlantic.

Even a pure science flight research lab can have its shaky moments. Try standing about 25 feet from an air jet test on a small wing section model in the NACA Gas Lab at Langley. When air rushes at the enclosed stationary model at 2,000 miles an hour, the roar goes far beyond the human sound level. Not only will you hear the noise, you will also feel it. It makes your skin and muscles shimmy.

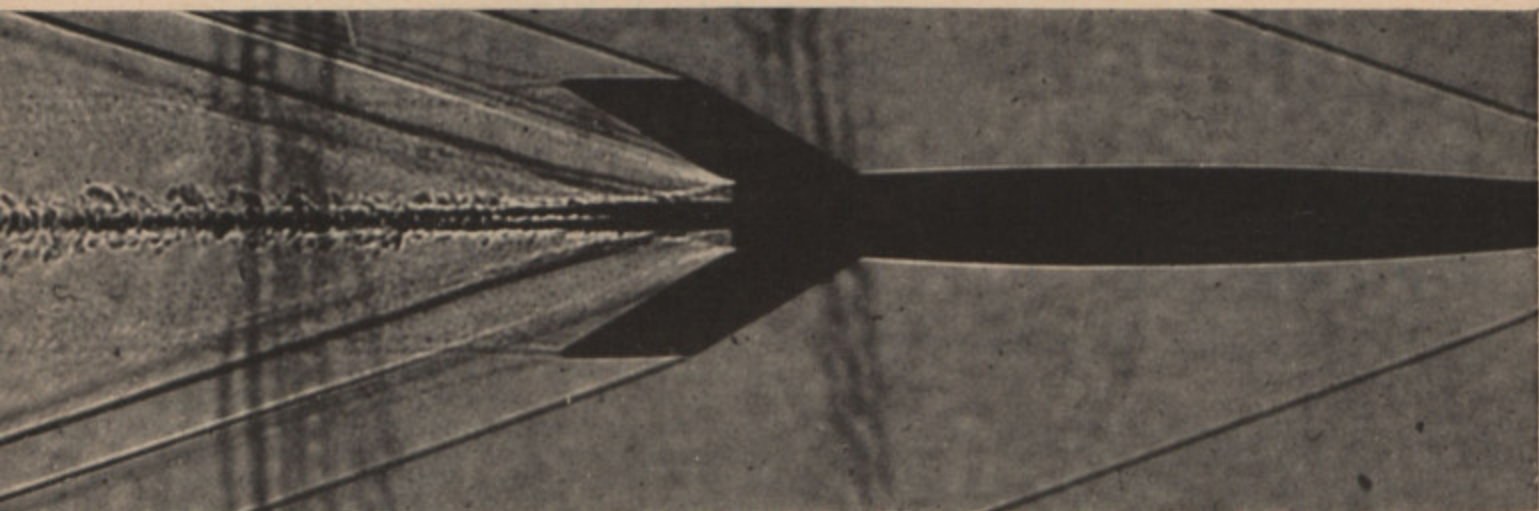
Pure research without an application outlet would be Operation Vacuum. In our case, the military and the aviation industry have an insatiable appetite for NACA findings, even though the NACA tries to stay five to ten years ahead of what the pack currently have flying in the skies. But with some pride, Dr. Dryden commented recently:

"All existing planes, whether military, commercial or private, embody principles and design features discovered or refined in NACA labs."

NACA experimentation on heating plane parts, for instance, led to the development of thermal de-icing systems now in general use on commercial and military planes. NACA also developed the streamlined metal covering for engines, or cowling, which cut the drag and improved engine cooling. Before plane manufacturers adopted the NACA cowling, engines overheated rapidly and speeds averaged 15-20 per cent less.

NACA experiments also pointed out the advantages of placing engines in line with the leading edge of the wing, instead of suspended between wings. In another case, NACA research on

(Continued on page 69)



AVIATION'S NEXT 50 YEARS

AS INDUSTRY

THE LEADING lights of some of our great aircraft companies predict aviation in the year 2000 with a strange mixture of conservatism and, to a layman, fantasy.

Unlike the scientist, they do not finger their slide rules and base their predictions on the probable increments to present knowledge. But they, too, have a measure by which they judge the future.

That measure is, "How much do you want it?"

"Aviation," they say in effect, "can produce anything that people will buy."

Thus bridled by fiscal bonds, they prophesy, with varying degrees of assurance:

1. Space travel at least as far as the moon;
2. Atomic power for transport aircraft;
3. Space satellites (under certain conditions);
4. Speeds up to 150,000 mph;
5. Hydrogen-bomb guided missiles that can be dropped anywhere, any time, so that peace becomes a necessity.

But on the other hand, our authorities are, in many predictions, full of rock-ribbed caution:

1. Few of them see the airplane replacing the auto as transportation for the average man—principally because of traffic problems.

2. Some of them believe that most of our airline transports, in the year 2000, will still be flying on jet power plants.

3. None of the experts, even the most sanguine, believes that we will have flown to another planet.

4. All of them are bothered by the zooming, astronomical cost of aircraft and aircraft research. They feel that, unless we maintain a high level of military spending to pay for research, aviation in this country will develop more slowly than in the past 50 years.

Since they have been stung often by costs rising way beyond estimates, by the hot and cold extremes of war contracts, by booms and busts in the commercial trans-

port field, by numerous unsuccessful ventures into the business of making a private plane that will replace the automobile—for all these reasons the experts agree vehemently on one crucial question mark about aviation's future: Who will pay the cost?

The executive vice president at Convair, J. V. Naish, has some pertinent comments. A canny economist who was factory manager at Northrop before he came to Convair, Mr. Naish helped shepherd Northrop through the great aircraft depression of 1947-48 (when military contracts were at ebb tide). That experience, when Northrop took to making motor scooters to make ends meet, has made him cautious about making future cost estimates. Surveys of the commercial transport field convince him that airliners will progress much more slowly than most people think—only because of the expense.

"For the highly populated runs the maximum is 3,000 miles," he says. "That's coast to coast and continent to continent. The 4,500 and 6,000 mile trips will never be economically feasible to create a whole new method of transportation. There won't be that much traffic density. So if you're talking about a 3,000 mile trip segment, at 1,500 miles an hour, that'd be two hours. If you go to rocketry or something else to reduce it to one hour, the terrific increase in cost would hardly justify it."

The Convair No. 1 guided missile expert, J. R. Dempsey, who should know about fantastic speeds, phrases the same proposition in practical language:

"Why would you want to go 5,000 miles an hour, if you're going to make a 3,000 mile trip? If you could travel 3,000 miles or so in a couple of hours, that's as fast as you'd want to go in view of what it'd cost you to travel any faster."

J. H. "Dutch" Kindelberger, the manufacturer of the country's front line of fighter defense, the North American F-86 Sabre, and its successor, the F-100



SEES THEM

By RICHARD TREGASKIS

Super Sabre, without knowing about the Convair answer, says almost the same thing:

"In predicting the day of one-hour flights from Los Angeles to New York, the factor of production energy applies. The basic know-how is already here. The question is, does anyone want to pay the price in materials and in man-hours to build and operate a 2,500 miles per hour missile transport? And if it is built, how many people will be in a big enough hurry to pay the staggering (to us, now) price of a round-trip ticket?"

Or, hear Arthur E. Raymond, the engineering chief of Douglas, world's largest manufacturer of transport planes:

"Until we find something new that we don't know now, we're not going to go up to the speed of sound without greatly increasing the cost of the ticket—possibly three times the present cost. Not so long ago it was six times. In 50 years, maybe it will be a lot less. But supersonic flight is a different thing from flight in other air. It's a steep cliff to climb to get through the sonic wall—and it's expensive."

Mr. Raymond has the same attitude toward trips to the moon and beyond. He doesn't deny that we may have reached the moon by the year 2000, but examining the prospect in the light of economic possibility, he doesn't consider it likely.

"I can't visualize what you'd do when you got there. . . . Why should you want to go there—and who's going to pay for it?"

And Edgar Schmued, the engineering vice president at Northrop now and famous for his previous work at North American (the P-51 or Mustang, familiarly called the Messerschmued) voices the same sentiment

about moon vehicles and interplanetary travel: "I don't believe anybody wants to pay the price for it."

Richard S. Boutelle, president, Fairchild Engine and Airplane Corporation, takes a "let's do first things first" attitude toward interplanetary flying.

"I would like to send an airplane to the moon as much as anybody," he says. "That's the challenge of the frontier. We've been shrinking the world and can tackle outer space, but we can also expand the lives of the world's people, and I can see an equal challenge in making airplanes do more for people in their everyday, close-to-earth lives."

But Hall Hibbard, Lockheed's vice president in charge of engineering, takes a much more hopeful view of such future matters as rocket transports and trips to the moon. He is also much more optimistic than most of the others about aircraft to replace the automobile as a vehicle for the average man. Mr. Hibbard says he doesn't believe we will be traveling to other planets by the year 2000 because there are too many difficulties to be overcome. But he warns against being too conservative in prophecies of aviation's future.

"I think that if we were to arrive at the year 2000, and look back at what we're saying today, we'd sound like pikers. Because if you go back 50 years ago today, man hadn't even flown—and I can't imagine those fellows 50 years ago looking ahead and saying that we would be roaring around at 300 miles an hour, carrying people and fighting wars that way. Furthermore there's one thing I'm sure they wouldn't have predicted: that the atom would be conquered as it is today, and that in 1953, we would have practically built an atom-powered engine."

With this perspective, Mr. Hibbard is much more confident than most of the others about the next 50 years in aviation. He feels that the cost factor will be overcome, that possibly atomic energy will increase our national power, and

(Continued on page 54)

It is possible to see the shock lines from nose and tail surfaces of a model missile going 2,500 mph, as this shadowgraph shows

there's fun and

ANY PARENT of prewar children can remember the profusion of toys that lay around every Christmas tree. You had to tread gingerly to get from one side of the living room to the other. You wondered if the Spirit of Christmas Present hadn't got a bit out of hand. And you knew there could never be more toys than that.

But there are. America's fastest growing industry is no twentieth century phenomenon like aviation or plastics. It is the ancient toy industry that goes back to prehistoric times but never before was "big business."

In the best of prewar years Americans bought \$200,000,000 worth of toys for their children. This year we're buying \$800,000,000 worth. By 1955, according to all indications, toys will be one of our \$1,000,000,000 industries.

What happened all of a sudden?

Inflation doesn't explain it. While inflation was doubling dollar volume, toy manufacturers were quadrupling it. You can't explain it by the rising birth rate, though toy sales are peculiarly responsive to that. While the birth rate was going up 20 per cent toy sales were going up 200 per cent. Imports from Germany and Japan, once an important factor, were cut off by the war; but at their all-time peak they would not have accounted for a tenth of today's toy sales. Other and more basic reasons lie behind the toy boom.

The keys to all business are distribution and demand. In this present generation the toy industry has seen a change in the nature of both.

Distribution is measured by the number of retail outlets that actually have the merchandise for sale. During the depression, when retailers were hungry for any kind of merchandise that would move, they discovered that anybody can sell toys at Christmastime. No longer confined, more or less, to department stores, hardware stores, and candy or stationery stores, toys began to be seen everywhere. Drugstores took them up, and clothing stores, and groceries. Today, toys have 250,000 outlets.

Demand is created chiefly by advertising, but in the case of toys there is a further factor—one of our unique national characteristics.

Americans indulge their children as no other people of the western world ever did. If the kids beg hard enough for something and we can possibly scrape up the money, they get it. One manufacturer was so sure of this that he had his dealers offer to "lend" any little girl a \$25 doll for a week—and then take it back regardless of condition. "It was a dirty trick to play on parents," he muses now. "Men who were walking the streets unemployed would borrow the money rather than take that doll away. Returns? We didn't get any!"

Far beyond the bare population and birth-rate increases, we have recently acquired a new generation of American children, the grandchildren of the last big

wave of immigration. Their grandparents, foreign-born, did not buy many toys for their children. Their parents, American-born, do.

The spread of play schools and kindergartens has contributed. There children learn to play with toys and to want toys at home, too. This creates a demand.

But advertising still plays the biggest part, and in a unique way. Toy manufacturers do not advertise extensively, except in their own trade journals, but they have found a way to tie in with \$1,000,000,000 worth of free advertising every year. The demand for Hopalong Cassidy toys was created by television time that the manufacturers could not have bought for \$10,000,000. Toys, books and games based on Walt Disney's characters get free advertising every time a Disney cartoon shows on the screen. Today's dolls get Toni waves, apply Harriet Hubbard Ayer cosmetics, eat Gerber's baby foods, and are similarly identified with dozens of other nationally advertised products. Every ad for the product is an ad for the toy.

The tie-in helps both sides, directly or indirectly. The national advertisers want to impress their brand names on young minds, and toys help them do it. The owners of cartoon and television characters get a more immediate return. Even the lush income from a hit television show pays Howdy Doody less than the royalties from licensed toys. Chester Gould, creator of Dick Tracy, has one of the most profitable comic strips in the country; yet in one year the "Sparkle Plenty" doll, based on one of his characters, made more money for him than the strip itself.

The strange agglomeration of firms known as the toy industry is a combination of fly-by-nights that operate on a shoestring, manufacture in small, dark lofts, and face ruin if they don't come up with something good this season, and solid corporations whose well equipped factories were able to produce nearly \$500,000,000 worth of war goods during the conversion period. Of the thousand-odd toy manufacturers, some 50 firms do fully half the annual business. The other half must be cut up among some 950 other firms, of which about 20 will go bankrupt in the average year.

Toy manufacturing invades all fields. One firm is among the largest dress houses in the world—but all its dresses are made for dolls.

In composition, the toy industry is much like the dress industry. Nearly three quarters of all toy manufacturers have offices within 500 feet of the corner where Fifth Avenue, Broadway and Twenty-third Street meet; some 392 of them are in a single building on that corner. They manufacture within the New York City limits or nearby in New Jersey. Chicago is the second-biggest center, and Dallas, Atlanta, Boston, San Francisco, and in recent years Los Angeles, have their toy industries, but none compares to New York. The annual Toy Fair, the industry's New York show, attracts some 15,000 buyers each spring.

No other industry has such headaches as the toy industry. One of these is of recent origin: No manu-

millions in



facturer could foresee, at the war's end, that his business would increase anywhere from two to ten times within a few years, and virtually all are undercapitalized. The other and bigger headache has endured as long as there has been Christmas giving, and the best brains in the industry have proved unable to find even a partial solution.

The public won't buy toys until November and December. Then it buys 70 per cent of the industry's annual output. Until then, retailers don't want them. The manufacturers have to design their toys a year ahead, display them in the spring, manufacture them in the summer—and collect for them in November and December. Even if they had the cash to buy their raw materials and meet their payroll during these intervening months, they wouldn't have the storage space to keep the finished toys. And in these days of full employment, how is a manufacturer to keep experienced workers when he can employ them only half a year?

The dream solution would be to make toys a year-round business. This is the expressed first aim of the industry's national trade association, Toy Manufacturers of the U.S.A., and of its largest public relations firm, Toy Guidance Council, Inc., to which several hundred manufacturers subscribe. But so far the solution remains a dream.

There being, as yet, no good solution to any of its multitudinous ills, the toy industry even more than other industries lives on borrowed money. The big manufacturers borrow their millions from the banks, maintain some semblance of year-round production to keep a reliable working force, and pile their produce high in warehouses until the time comes to ship it. The small manufacturer just does the best he can. He hires his labor on a catch-as-catch-can basis and produces frantically during the late summer and early fall. To save storage space he ships immediately to any store that will let him, but bills as of Oct. 1. Having shipped, he borrows enough on his accounts receivable to meet his next payroll. If his toys sell well, he pays off all his creditors at the end of November and reaps the profits in December.

The instability of the industry lies largely in the fact that toys are short-lived sellers. Three years is the rule of thumb—rising sales the first year, top sales the second year, declining sales the third year, and after that, out. Some novelties must do all their selling in a single year.

No such pressure plagues the big manufacturer. His stability is measured by the number of standard items in his catalog. Louis Marx—who is by far the biggest toy manufacturer, selling about ten per cent of all the toys sold in North America—has about 5,000 different toys for sale, and most of them go on year after year. His sales are not greatly affected by the success or failure of any new item. The big train manufacturers, Lionel and A. C. Gilbert (who also makes Erector sets

and various other time-honored items) add new fillips to their lines each year, but do the bulk of their business on the things they have been selling year after year. Ideal Toy Corporation, which is second to Marx in the general field and the largest manufacturer of dolls, carries 2,000 different toys in its line.

If Marx is the largest of the toy firms, Ideal is easily the most colorful, particularly in the person of its chairman, Ben Michtom. It was he who signed Shirley Temple on the dotted line, dreamed up the Sparkle Plenty and Bonnie Braids dolls, and persuaded Al Capp to get Li'l Abner married so he could become the father of a doll.

It is just that Ideal should be the epitome of the modern, tie-in-with-celebrities, toy business, because Ideal started it all, in 1903. That was the year in which Morris Michtom, father of Ben and seller of handmade stuffed dolls at his candy shop, wrote to President Theodore Roosevelt and asked if he could call his toy stuffed bears "Teddy" bears. TR said yes, and Michtom Senior promptly founded Ideal.

In the pre-Michtom era there had been no American toy industry to speak of. In the late years of the nineteenth century old Friedrich August Oscar Schwarz had been able to boast that 75 per cent of all toys sold in the United States passed through his hands—and every toy of them imported from Germany. Much as Morris Michtom had used toys as a side line in his candy store, F. A. O. Schwarz had made them a side-line in his Baltimore stationery store in 1853. Today, F. A. O. Schwarz's Fifth Avenue store in New York is the bellwether of the nation's entire toy industry.

Incidentally, if you are surprised that you hadn't previously heard that this year is F. A. O. Schwarz's hundredth anniversary, the explanation is that the present president, P. L. Kirkham, doesn't believe in anniversary celebrations—thinks they're sort of silly.

German domination of the toy market ended with World War I. Then there was a Japanese invasion beginning in the 1920's and ending with World War II. Neither has come back.

The German toys were beautiful handmade creations. They were the product of "cottage industry" in which whole families worked at home, and for pay far below the American scale. The Japanese toys were cheap mass-production jobs, based on such low-cost labor that they undersold American toys despite protective tariffs and transportation costs.

Today our best machine-made toys are more beautiful than the old German handmade ones and as economical as the Japanese ones.

But the toy industry does feel that a leveling-off stage will be reached within the next few years, after which growth will be more directly proportionate to the birth rate. Unless, of course, somebody does figure out a way to make toys a year-round business. If you happen to think of a way, will you please write—or, better, wire—to anybody in the toy business.

END

—ALBERT MOREHEAD

7 who guide our

A PURPOSEFUL group of men is now carefully planning the destiny of the United States. We call this group the National Security Council, and we might liken it, as it weighs the factors of risk and security, to the executive committee of a corporation.

We might regard the Cabinet as the national board of directors, developing policy on a departmental basis. But it is the Council, serving as the executive committee, that makes the vital decisions relating to national security. President Eisenhower is the chairman of the board and of the executive committee.

For several years we have seen references to this super agency with increasing frequency. It has got into the fabric of our lives, but we are not allowed to know much about the way it operates. The Council's deliberations are conducted in the greatest secrecy, because it is concerned with the future of the United States in the struggle against Soviet communism. In its vaults is the greatest collection of plans which this country ever prepared against an uncertain future.

The citizen can assume when he reads of an important policy decision that President Eisenhower and the other members of the executive committee ordered it that way after the most deliberate kind of planning—after weighing the probable profits and the probable losses on the scale of national security.

It may be the size of the national budget; trouble in foreign lands; the allocation of manpower; or the stockpiling of strategic materials—you can be sure the National Security Council has pondered the national security aspects of any of these problems before making any related decision.

In the world crisis now United States policy is that we cannot afford to let communism win anywhere. NSC tries to anticipate hostile moves by the Soviet Union and her satellites in every part of the world where freedom might be endangered. The Council considers every possibility and draws up a master plan and alternative plans for coping with these moves.

The airlift into Berlin was one of the greatest victories achieved against Russia in the cold war. We can assume that NSC had the decisive role in handling the crisis that way. A proposal to force the Soviet blockade with an armored column was rejected as too risky. It might have precipitated World War III. Instead the airlift, flying in food, fuel and other supplies day and night, made the Russians wobble and then give up. For the divided German people and for the rest of the free world the roaring bridge of planes was a symbol of this country's determination to hold a key outpost on the edge of the Iron Curtain.

One payoff was the uprising in East Germany last June that made the men in the Kremlin realize that the German people's will for freedom is by no means conquered.

On the other hand, this country's unpreparedness for the communist aggression in North Korea showed the necessity for an effective high council to examine the world's trouble spots and act decisively and swiftly. NSC was already in existence when the Korean war broke out but the failure to anticipate it was due partly to faulty judgments and conditions that prevailed before the Council was well established. Korea

is an example of a situation that we cannot afford in the future. Consequently the Council, apart from the new leadership it obtained with the Eisenhower administration, was strengthened and placed on a more intensive operating basis.

The citizen can assume now that the Council has explored all possibilities that may arise out of the complicated truce situation in Korea—or in any other trouble spot—and that plans and alternative plans are ready for instant action. What may happen in Korea or elsewhere may not turn out exactly as the executive committee has anticipated, but the leaders expect their analyses will be close. The strategic plans will need little modification to meet trouble. Therefore a decision will be made more easily and more promptly because our top men have done their homework.

The National Security Council was created by the National Security Act of 1947. It was formed after the bitter lessons of Pearl Harbor and the world war that followed. Too often in the past this country had let its defenses deteriorate. Too often its influence in preserving the peace was ineffectual because its actual strength did not nearly approach its vast potential material and moral strength.

The Council was conceived as an agency which would weigh the prevailing risks, plan to meet them and maintain the strength to do so. War had become total in that it required the mobilization of all elements of our resources. Consequently Congress gave NSC the mission of coordinating domestic, foreign and military policies relating to national security so that no necessary element would be out of balance.

When the Korean war broke out, one critical question was whether to declare a full or only a partial mobilization. The decision was for partial mobilization, the Council having reasoned that the world crisis might last for decades and would not finally be decided in Korea. Therefore it was concluded that, if too much wealth and resources were poured into that war, the country might be undermined economically and the communist leaders would accomplish in that way what they could not do by force.

So the decision was to maintain a high level of production for civilian needs and to make a commensurate military effort for the distant war.

The leaders who are now carrying on this kind of planning under President Eisenhower's direction are Vice President Richard M. Nixon, Secretary of State John Foster Dulles, and Secretary of Defense Charles E. Wilson. They are the members designated by law. In addition, the Council has three other members assigned by the President under congressional authority: George M. Humphrey, Secretary of the Treasury; Harold E. Stassen, director of Foreign Operations Administration; and Arthur S. Flemming, director of Defense Mobilization.

These six Council members are supported by a Planning Board. On it are Robert Bowie, chief of the Policy Planning Staff of the State Department; Elbert P. Tuttle, general counsel of the Treasury Department; Frank Nash, Assistant Secretary of Defense for International Security Affairs; Brig. Gen. Robert W. Porter, representing the director

(Continued on page 72)

destiny

By **ANTHONY H. LEVIERO**

In the vaults of the National Security Council is the greatest collection of plans ever prepared against an uncertain future

These men concern themselves not only with putting out today's fires but with forward planning to help in preventing international conflagrations

THE PRESIDENT

NATIONAL SECURITY COUNCIL



Eisenhower

Nixon

Dulles



Humphrey

Wilson

Stassen

Flemming

ADVISERS: Chairman, Joint Chiefs of Staff
Director of Central Intelligence
Special Assistant to the President for Cold War Planning

OBSERVERS: Such person or persons as the President desires to attend for the purpose of observing, but not participating

STAFF: Special Assistant to the President for National Security Affairs
Executive Secretary of the NSC
Deputy Executive Secretary of the NSC

CIVILIAN CONSULTANTS

PLANNING BOARD



Cutler

Bowie

Tuttle



Nash

Porter

Elliott

These men assist the Council. Theirs is the most deliberate kind of planning which considers all probable profits and losses

OPERATIONS COORDINATING BOARD



Smith

Kyes



Stassen

Allen Dulles

Jackson

When the President issues a directive or spells out a policy, it is this group's duty to see that the project is correctly executed

STAFF

Special Staff

Headed by James S. Lay, Jr., NSC staff provides a secretariat, prepares the agenda, keeps records, handles communications

CIA

A vital unit under policy control is the Central Intelligence Agency, which gathers critical information from all over the world

It's SOCIAL but it's not SECURITY

Don't count your social security benefits before you see them; what, if anything, you will receive hinges upon legal provisions Congress can modify at almost any time

By **LEONARD J. CALHOUN**

YOU DON'T have a social security insurance policy—and you won't get one from the federal government.

When you take out a private insurance policy you have a contract permanently fixing your premiums and benefit rights. But the pension provisions of federal social security have been, and will be, modified from time to time. What, if anything, social security will pay you and your family will depend upon what the social security laws are when you retire or die. You may be in today, out tomorrow.

A friend's death recently illustrated this. His sole survivor was an elderly spinster sister. He had paid maximum social security taxes for 16 years, and thought she was protected. Under the original Social Security Act his estate—actually his sister—would have received some \$1,700 from social security. But the law was changed. Congress scrapped the provision which would have given her \$1,700 and she will not receive a dollar in benefits.

My friend had no contract right under the provision which would have paid his sister. In canceling his protection and using his taxes to pay orphans and other beneficiaries,

Congress exercised its specifically reserved authority. The intention was to improve social security. The official reason for the change was:

"Under a social insurance plan the primary purpose is to pay benefits in accordance with the probable needs of the beneficiaries rather than to make payments to the estate of a deceased person."

Unlike contract insurance, social security is tax-supported social welfare. The woman editor of a Mississippi newspaper found this out recently the hard way. She did not want to pay social security. The tax collector haled her into court. The judge agreed with the collector that, although social security payments may be labeled "insurance contributions," they are, in fact, a tax—and she owed it.

Our taxes support two social security programs. One of these provides assistance to persons of all ages found to be destitute (currently more than 5,000,000 beneficiaries including children, old people, disabled and so forth). Our general taxes support this relief program. The other program, financed by our special social security taxes, pays participants old-age and survivor bene-

fits regardless of their financial situation. (Some 6,000,000 persons regardless of age are currently receiving this aid.) We could call the relief program poverty insurance. We do call the other program social insurance.

Both programs were established because destitution, particularly in the case of old people and orphans, is of public concern. This purpose explains the use of the word "social" in the title and this word is the key to understanding the program. It explains why the courts hold that the law is constitutional. It also explains how it will affect you from the standpoint of both taxes and benefits.

The Supreme Court validated our social insurance program because, along with the relief program, it is "social." The Treasury has classed the social insurance benefits as exempt from income taxes, like relief.

"Social" explains why your social security taxes are the same whether you have or do not have a wife or children, and why the protection you get under the system is largely determined by whether you have or do not have these dependents.

"Social" explains why the system gives to low-paid persons, to contributors with large families, and to those covered but a relatively short time (which means nearly everyone now past middle-age) far more protection for their tax dollar than others get. The simple arithmetic is that, as some are getting or will get much more protection than their contributions warrant, eventually others must pay for more than their own protection.

"Social" explains the following December, 1952, social security situation:

Social security reserve	\$17,400,000,000
Present value of benefits which the 5,025,549 already on the rolls will receive	\$19,400,000,000

By June, 1953, while the reserve had increased less than six per cent, the rolls had increased by more than nine per cent.

BECAUSE its benefits are designed to achieve a present as well as future social purpose, present benefit rolls are large. The present balance of all social security revenues to date, according to official actuarial estimates, is not nearly sufficient to pay the benefits which persons already on the social insurance rolls will receive.

What will our social insurance program cost? Expenditures have been: 1944, \$200,000,000; 1948,

\$600,000,000; 1952, \$2,300,000,000. The latest official actuarial estimates of prospective benefit costs, assuming no changes in present law, are:

	High estimate	Low estimate
1955	\$4,500,000,000	\$3,900,000,000
1960	6,700,000,000	5,300,000,000
1970	10,100,000,000	7,600,000,000

Social security taxes produced \$3,-800,000,000 in 1952. Your guess may be as good as anyone's as to what future social security taxes you may have to pay to help finance the mounting benefits. Obviously the cost may be double—or more—in 20 years.

In addition, you must continue to pay other taxes to support the other social security program—relief. To date, relief costs have continued high. Though some 4,500,000 aged receive social insurance, more than 2,500,000 aged receive relief and though some 1,250,000 children and mothers receive social insurance, another 2,000,000 receive relief.

WE PAY part of the social security relief costs as federal taxpayers, the balance as state and local taxpayers. Under the federal Social Security Act, federal grants are made the states. Each state decides who qualifies and for how much. The results vary greatly. In one state some 60 per cent of the aged are on relief—in eight states less than eight per cent. In four states average monthly payments are under \$30, while in seven the average is between \$62 and \$79 per month. Total federal cost for the old-age and other federally subsidized social security relief programs for 1953 will be some \$1,300,000,000. State and local cost will be some \$1,100,000,000.

The situation created by grants tends toward high cost. The state legislature, in fixing its old-age relief program, may be influenced by the fact that with larger rolls more federal funds come into the state. Congress is presently committed to basing grants on whatever the states may choose to spend, and the federal taxpayer must foot the bill. High relief costs continue despite good times and the social insurance program.

What should be done about social security in view of this relief situation, and in view of the discrimination treatment of some of the present aged under social insurance?

The United States Chamber of Commerce has recommended:

1. Putting the presently unprotected aged on the social insurance rolls.

2. Terminating the federal grants and leaving to the states the relatively small burden of supplementing the social insurance benefits with

relief benefits in such cases as may be necessary.

3. Cutting out the present social security tax exemptions.

4. Operating on a realistic pay-as-you-go basis.

The extra social insurance load would be temporary. These aged will live only a few years more. Virtually all who become 65 in the near future will qualify in any event. But if we don't make these recommended changes, we may have a continued heavy and expensive relief program.

Objections to the proposal to extend social insurance to the unprotected aged are mostly based on misconception of social insurance. This confusion is understandable. Our social security program has been publicized as "insurance," and the word "social" has been entirely ignored. This has led people to believe that their tax payments have bought their protection and have been set aside in the reserve to pay them. If this were true, payments to those now unprotected would obviously be a diversion of their insurance reserves.

Let's look at some benefit facts.

Under existing law, whether you were first covered when the system began or were only recently covered, your benefits are based on your average social security taxed earnings. Your average will be from the date the system began or Jan. 1, 1951, whichever is more favorable. This rule applies to everyone—young persons who will contribute for 45 or 50 years and to aged individuals who retire after a year and a half of coverage.

Thus the present aged who qualify are, in effect, given "wage credits" for from 30 to 43 years of untaxed past service.

The Senate Finance Committee, in explaining this treatment, said:

"In a contributory social insurance system, as in a private pension plan, workers already old when the program is started should have their past service taken into account. The unavailability of records of past service prevents giving actual credits. . . . But the benefit formula can and should take prior service into account presumptively."

The United States Chamber's proposal would extend enough "presumptive" past service credit to the left-out aged to qualify them for minimum benefits. This would add only a small fraction to the multiplied billions in past service credit already extended. It accounts for the great bulk of every retirement benefit presently paid.

A business acquaintance recently remarked that the "Johnny-come-lately's" first brought under social

security in 1951 were getting a wind-fall. He pointed out that some couples get \$127.50 a month retirement after a year and a half coverage. He is slated to retire in 1957 and he and his wife will also receive \$127.50—unless the law is changed in the meantime. He has been covered since the system started. His social security taxes will have totaled around \$800 on his retirement—only ten times the taxes of some who have retired after short coverage.

HOWEVER, he became strangely silent after we looked over some recent actuarial costs prepared by the social security actuary. These figures showed that, on an insurance basis, my friend's premium is \$12,000—the amount required to finance the benefits which persons in his situation will receive on the average. Thus his \$800 in taxes covers only about seven per cent of the actual premium to pay for his protection. Other people's taxes will have to make up the balance, so his social insurance is 93 per cent "social."

Millions of people like him have been continually covered since the system started and many have retired on benefits or will do so in the next few years. But with "insurance" emphasized and "social" played down or omitted, some have come to feel that their token taxes have bought and paid for their "insurance." If they knew the facts, they would probably join in urging equitable treatment of today's aged who receive no benefits.

Suppose we look briefly at the thin line between the "protected" and "unprotected" aged, and what it does to our present aged.

Today's aged who qualify for "past service credits" and benefits can have as little actual participation as six "quarters of coverage." This is social security technical jargon. Quarter of coverage only means a calendar quarter in which the worker has \$50 or more in taxed earnings—a few days' work.

Lack of this token coverage—as little as \$300 in total taxed wages, with a three per cent combined employe-employer social security tax on these wages—stands between some 4,000,000 retired aged and benefits.

Word seems to have been passed around as of late of ways of clearing this small obstacle to benefits. One is for the oldster concerned to ask you and me for just a small amount of social security covered work.

When we can use him, we of course do. What are the ethics of the

(Continued on page 79)

UNCLE SAM MUSCLES IN ON CRIME'S PAYOFF

NEVER AGAIN can America's hoodlums rest easy. In a manner of speaking, they are between the devil and Uncle Sam. Like all businessmen, honest or not, those engaged in illegal trade have to pay federal taxes. If they don't, the law steps in. If they do, attention is focused on the nature of their operations, and the law steps in anyway.

Although the Internal Revenue Service has for the moment called off its special drive against rackets, the threat remains that the hunt can be called on again posthaste.

It was a unique experiment in American law enforcement, aimed not only at collecting legitimate taxes from illegitimate business but also at wiping out as many of the unlawful enterprises as possible by making them unprofitable.

After two years the score adds up to some \$200,000,000 in taxes, penalties and jeopardy assessments. In addition, the government has stubbed the toes of about 15,000 promoters of nefarious but lucrative activities.

The Internal Revenue Service now feels that, instead of special one-shot treatment, the once-neglected racketeers can be given regular and frequent doses of attention by the tax agents.

In the past two years, even while congressional committees exposed links between a few key tax officials and shady characters, some 2,000 agents in the field probed perseveringly into the tax returns of more than 43,000 known and suspected racketeers, crooks, gamblers, dope peddlers, bootleggers, brothel proprietors, thugs and other illicit entrepreneurs.

About 15,000 of these people had to pay the legal share of their income to Uncle Sam, and more than 600 of them have been indicted for evasion and fraud. So far, 400 of them—many never before convicted for their crimes of commission—have been convicted and sentenced to prison for the singular crime of omission. Failure to let Uncle Sam have his part of the profits will eventually send many more to jail.

In 1951 the revelations of the Kefauver Crime Investigating Committee shocked the nation into awareness of the extent and depth of criminal operations. Public reaction demanded that steps be taken to deal with the seemingly inviolate crime syndicates and rackets bosses.

Nevertheless, overwhelming suspicion is not enough for conviction, and it was impossible in many cases for law enforcement agencies to pin any specific crime on the suspected persons. At this point, the crime fighters recalled the exploit of Internal Revenue agents in the middle 1930's when they tracked down the assets of Al Capone, showed him up as a tax evader, and sent him to the penitentiary for ten years.

Capone and associates for years had done business in a broad assortment of crimes, yet he appeared beyond the reach of the law. Tax agents succeeded because, unlike other crimes, income tax evasion cannot be hidden indefinitely. In other criminal activities the evidence can be destroyed, even witnesses. But

in the filing of a false tax return—or in failing to file a return at all—the individual, in effect, submits unalterable evidence against himself.

Whether he maintains a double set of books—a phony one for Uncle Sam and a true account for himself—or no books at all, he gets trapped by his “net worth.” Once on the trail, revenue agents assiduously trace and add up the value of the suspect's possessions—house and furnishings, automobiles, fur coats, race horses, what have you.

Then the agents ask the vital question: “How did you acquire these things?”

The answer brings almost certain retribution. A racketeer who has been taking in \$175,000 a year and has declared, for example, only \$21,000 as income then faces the task of explaining how he has been able to live so high, wide and handsome.

Al Capone was tripped, and since then the tax people similarly have caught an underworld figure here and there. In the spring of 1951, however, the government determined to spring its income tax trap on all racketeers in sight, actual and alleged, especially those who had managed to stay beyond the reach of the law.

Under the supervision of a veteran agent, John B. Dunlap, special “racket squads” were set up. About 2,000 of the most skilled and experienced agents began a concentrated drive against known and suspected operators and promoters of illegal enterprises.

A master list was compiled. It included 43,000 names from the files of the Kefauver Committee, the FBI, Secret Service, Customs Bureau, Narcotics Bureau, and state and local police.

Alert agents added names to the list by checking up on the owners of expensive automobiles, fine homes, and on those who made big bets at the races, as well as those who flashed large rolls of cash in public places.

The Justice Department cooperated by setting up special grand juries in 93 districts across the country to expedite indictments.

One man, arrested more than 30 times, had never served a prison term. Then revenue agents became interested in his mode of high living—\$492 kitchen curtains, \$50 neckties, \$350 cuff links, and so on. When the agents completed their inventory, he was slapped with a bill for \$249,000 in additional taxes and penalties. He got a five-year prison term to boot.

The tax drive against racketeers produced these results: The underworld was forced to pay an increasing proportion of taxes; many hoodlums were driven out of business; and officials who provided them protection were exposed and put behind bars.

Despite the extra income this program dropped into the pockets of Uncle Sam, taxing crooks can never be relied upon to yield any substantial proportion of the federal income. It is clearly a case of the government's attempting to tax certain businesses out of business, so far with gratifying success.—SAM STAVISKY **END**



Highways win their cold war

If winters seem less severe, it's partly because the men who maintain our highways and streets are finding new and better ways to handle the snow and ice removal **By WILFRED OWEN**

OF THE 54,000,000 motor vehicles on the road this winter about 40,000,000 will be running into snow and ice. The fact that they will be running with less hazard and inconvenience than ever before can be credited to a \$150,000,000 snow strategy that is paying off in dependable motoring the year round. With new ideas and new weapons, America is winning the cold war on the highways.

Snow removal and ice control are the top winter maintenance jobs for the highway departments in 36 states. Weapons range all the way from giant V-plows and rotaries to cinders, corn stalks, paper fences, two-way radio, radiant-heated pavements, salt and dynamite. Even jets and flame throwers may be added to

the snow fighters' arsenal. With due credit to windshield wipers and defrosters, the front line fight to keep highway transportation going is not being fought in Detroit but on thousands of miles of icy roads.

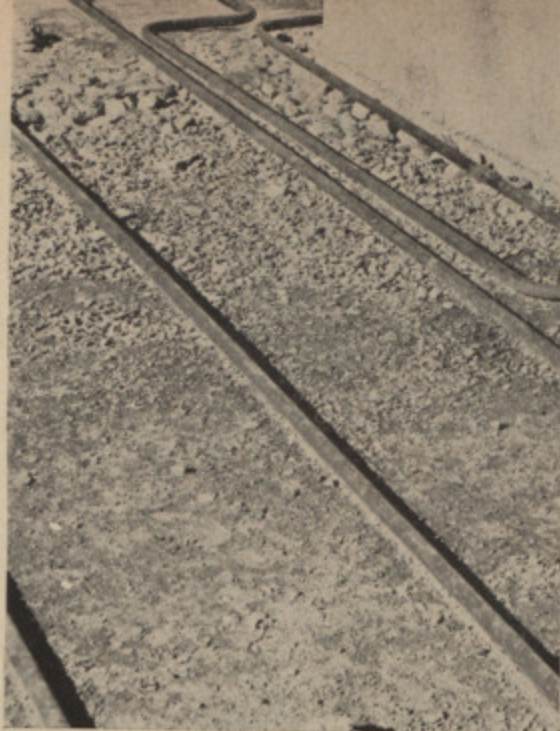
Snow and ice are likely to cripple transportation by highway almost everywhere in the United States with the exception of southern California and Florida, and the southwestern part of Arizona. Along the western slopes of the Cascade and Sierra Nevada ranges, 60 feet a year is not unusual. Even some parts of the South have snow-blocked roads to contend with.

In West Virginia, for example, automobiles in the Elkins area run into twice as much snow as motorists

in Philadelphia, and this part of West Virginia sees more snow than Fairbanks, Alaska. In Winchester, Va., motorists are plagued by more snow than the folk in Trenton, N. J., and the cold winters of North Dakota give Bismarck drivers only about one more inch of snow to worry about than the driver who ventures forth in New York City.

The success of recent efforts to keep the highways clear can be measured by recalling the winter paralysis that was common a few years ago. In the early '20's much of the motoring population of the northern states went into hibernation at the sign of the first snowflakes. The combination of open cars and closed roads was enough to discourage the

These heating pipes laid beneath the surface on a dangerous eight per cent grade on the four-lane highway entering Klamath Falls, Ore., melted 16 inches of snow as it fell on the pavement



Rotary plows are employed extensively in mountainous country where towering drifts are encountered and where there is less chance of hurling a stream of snow through a window



HERBERT LANKS—BLACK STAR

warmest supporters of the automotive age. Those who kept their cars on the road were unable to use them in bad weather. Merchants throughout the North became aware that, in many areas, getting the highways out of the white was the only way to keep business out of the red. Much of our investment in cars and roads was going to waste.

A reminder of earlier winter travel troubles is still provided by the school schedule in rural sections of eastern Kentucky. Children there go back to school in mid-July and take their vacations in wintertime, a custom that began when snow-blocked country roads made it impossible to get to school. As late as 1925 only nine states made any pretense of clearing the main roads of snow, and in 27 other states only the most important through routes and major arteries in large population centers received effective treatment.

The best that some highway departments could do was to pack down the snow with giant horse-drawn rollers.

By way of contrast, this winter 60,000 plows and trucks will be keeping more than 300,000 miles of rural highways and almost as many miles of city streets open for traffic-as-usual.

Gasoline consumption figures in winter compared to summer months measure the extent to which the snowplow has smoothed out the seasonal fluctuations in automobile use. In 1933 in Connecticut 75 per cent less gasoline was consumed during January and February than in June. But during the past two years, after two decades of continually improving winter maintenance, the difference was only 16 per cent. The U. S.



Bureau of Public Roads recently announced that snow fighting efforts throughout the nation since the war have meant an additional \$50,000,000 per year in gasoline tax revenues for highway purposes at a cost of only one third that amount.

Among the new tactics in the snow clearing business, melting the snow where it is instead of trying to move it has become a major objective. Sun and thaw take care of things this way, and getting the snow and ice to melt as soon as possible is the logical way of beating nature at her own game. The melting process may be effected with salt, either calcium chloride or sodium chloride, and thousands of tons are used every year for this purpose. The insistence of automobile owners on continuous ice control and bare pavements has put ice melting costs ahead of the snow removal bill in several states. A pound of ordinary salt will melt 46 pounds of ice at 30 degrees F. Or 14 pounds when the temperature falls to 25. Giant spreaders or "salt shakers" are being used to defrost California highways, and in Ohio the salt shaking has been done by helicopters.

When salt is mixed with sand or cinders it helps to embed the abrasive in the snow or ice, and the dark color of the abrasive helps the melting process. Clean white snow throws off 90 per cent of the sun's energy but a dark surface absorbs nearly 100 per cent of the sun's rays.

As in the case of the New Jersey Turnpike, color plays another role in this winter warfare. Turnpike crews are using a green rust inhibitor with salt. This serves to reduce the corrosive effect of salt on car underbodies and tells motorists (and the mainte-

nance supervisor) where the road has been treated.

Radiant heating has been tried successfully in a number of locations, especially sidewalks and private drives, and its use for melting ice on the highway is in the experimental stage. Oregon has successfully heated a dangerous eight per cent grade on the four-lane highway entering Klamath Falls. Warm water circulated in pipes laid in the pavement keeps the road surface above the freezing mark when air temperatures fall as low as six below zero. One snow storm of 16 inches was melted as it fell. The heating is done by natural hot springs located nearby.

In Britain last winter the railroads hit on the idea of jet propelling their snow removal program by mounting a turbo-jet aircraft engine on a flat-car in front of the locomotive and directing the exhaust ahead of the train. The hot blast not only melted the snow but blew away drifts from four to 18 feet high. Similar equipment is now available in the United States.

Trucks equipped with flame throwers have been tried, too, but the hazard of burning up the road is a problem that remains unsolved. Machines have been designed for airport use to melt the snow with crude oil fire, and railroad yards are being kept clear by rotary plows that whip the flakes into a melting chamber that operates with hot water sprays. Michigan has conducted several years of experimentation with electric heating of pavement surfaces. It has been concluded from experience to date that melting snow with electricity on any extensive scale is impractical.

In Germany tests are proceeding to produce a road surfacing material that will melt ice and snow chemically. Last winter a test section of highway 1,000 feet long was paved with asphalt containing an emulsion which the inventor claimed would maintain the road free of ice and snow for eight to ten years. The salt-treated road was found to remain free of ice at 27 degrees F. when adjoining sections were covered, but below this temperature there was no noticeable difference between the treated and untreated sections. Another section of test road has now been completed using materials that contain twice the quantity of the chemical admixture, and further observations will be made this winter.

Other possibilities mentioned recently as ultimate solutions to the highway snow removal problem are the use of nuclear energy for pavement heating if the supply and cost of electricity from this source make it economical to heat the highways instead of plowing them. And the seeding of clouds to cause them to dump their snow before reaching heavily populated metropolitan areas is not considered beyond the realm of possibility. When New York City had to dig itself out of a 26 inch fall in 1947, it cost the city approximately \$180,000 per inch of snow. The economic desirability of depositing those 26 inches somewhere else, at some snow-starved winter sports center for example, or in the ocean, is clear.

These new developments and hopes for the future emphasize the basic philosophy of today's snow fighters to prevent as much trouble as possible before the snow arrives.

(Continued on page 75)



HOW'S

AN AUTHORITATIVE REPORT BY THE STAFF OF THE CHAMBER OF COMMERCE OF THE UNITED STATES

AGRICULTURE

The worst may be over for the American farmer, in the opinion of Agriculture Department experts. This outlook assumes that consumer income available for spending in 1954 will be about as large as in 1953.

Supplies of most farm products are expected to continue large in 1954 but price supports will cushion their impact on farm prices.

Net farm income in 1954 is expected to remain at about \$12,500,000,000, the 1953 level. Farm prices, in general, may ease off some but farmers' production costs are also expected to be slightly lower.

Price supports for wheat, cotton, corn, peanuts, rice and some types of tobacco will continue at 90 per cent of parity unless marketing quotas for any of these crops are disapproved. Oats, barley, rye and grain sorghums will be supported at 85 per cent of parity, flaxseed at 70 per cent.

Cattle prices have undergone most of the shake-down that is expected, agriculture economists say. Prices of hogs, chickens and eggs will remain favorable for farmers.

Any substantial acreage shift to vegetables, as a result of acreage allotments on wheat and cotton, may result in marketing difficulties.

CONSTRUCTION

Signs are becoming clearer that mortgage financing will not generally be a serious problem at least dur-

ing the first six to eight months of 1954.

The money market is changing so rapidly and the forces which activate it are so complicated that prediction is hazardous, but there still seems little doubt of a downward movement in interest rates that will continue through 1954.

Through the recent past savings have grown rapidly. During the first half of 1953, deposits in mutual savings banks rose about 15 per cent more than in the first six months of 1952; share accounts in savings and loan associations grew more than 20 per cent; life insurance company assets and commercial bank time deposits expanded by about the same amount as the previous year and the steady reduction of outstanding loans has added to the funds for new lending.

This means that, since the beginning of summer, all influences have combined to increase availability of credit.

This makes for a favorable outlook for residential building in 1954.

CREDIT & FINANCE

The government's hard money policy will not be pushed too hard in the next few months.

For one thing, signs of some easing in business activity have appeared, and the ears of the administration have been pretty acutely tuned to these economic indicators. For this reason alone, too much

stress on high interest rates, tight bank reserves and all the other anti-inflationary monetary measures is not to be expected.

Another factor is the government debt, still generally trending upward. By the end of this calendar year the debt will be close to the \$275,000,000,000 limit and the Treasury's cash will be down to about half of one month's expenditures. While the situation will ease in the heavy tax collection period early next year, the Treasury foresees no sharp spending reductions which will counterbalance the effect of scheduled tax cuts during the year.

Thus the prospect is for a continued unbalanced budget.

DISTRIBUTION

Business for distributors in 1954 can be good—maybe not record-breaking, but good—although in some areas the fight for the consumers' dollar will be vigorous.

Right now, retailers everywhere realize that they must cram a lot of sales by Dec. 25 to counteract effects of recent balmy weather. At this point Christmas volume is more important than ever.

Lower prices for important consumer goods—apparel, dairy products, house furnishing among them—increase the importance of pricing and some producers are looking at fair trade as a means of maintaining price levels. The Supreme Court's refusal to upset the McGuire Act has encouraged fair traders to use this device as a defense against discount selling and price cutting.

Employment in distribution is up. Many operators plan to maintain employment at a high level in 1954 to meet the pressures of a consumers' economy.

FOREIGN TRADE

Expectations for 1954 foreign trade levels are optimistic: as good or almost as good as 1953, in most fields. Imports, being largely dependent on industrial activity at home, are expected to stay high, although a slight drop in domestic production may affect duty-free necessities as well as boom-time imports.

Exports are also expected to hold up. Foreign countries, after a gen-

BUSINESS? a look ahead

erally good 1953 business year, have accumulated dollar and gold holdings in anticipation of lower U. S. foreign aid and as a build-up for ultimate convertibility. Significantly lowered industrial activity in the United States, however, might cause other countries to reduce their purchases from the United States in anticipation of lower dollar earnings through exporting to the U. S.

No clear long-term trends in American foreign trade are likely in 1954. The fight for a long-range foreign economic policy for the United States won't get beyond the first skirmishes in a congressional election year.

GOVERNMENT SPENDING

Next month the President will submit to Congress the budget for fiscal 1955—the first of his own making. Though it will necessarily reflect numerous carry-overs in Truman administration commitments, there is ground for expecting some further expenditure cuts. If no business setback occurs, budget trimmers hope to keep the total around \$68,- to \$70,000,000,000.

The big factor in the budget picture is defense spending, estimated at \$41,700,000,000 this year. The recent hassle over the Russian H-bomb has upset defense calculations enough to suggest that detailed plans cannot be formulated for 1955 in time to appear in the January budget. Instead, there is talk of a lump sum defense budget.

The mutual security program (foreign, military and other aid) is another uncertain factor. Recent intimations are that it will be included as part of the defense program instead of separately stated as in the past.

LABOR RELATIONS

What will Congress do about labor legislation in 1954? Amateurs and experts alike are asking this question.

Out of all the discussion some things are emphasized. For instance, states should have authority to regulate strikes and picketing. Without this authority they cannot protect their citizens. A local utility strike may imperil health and safety. The state is powerless, however, because

Taft-Hartley preempts the field and does not recognize the local emergency.

The law should protect neutrals, moreover. For example, a union tried to organize employees of a small businessman who operated some delivery trucks. Failing, the union threatened to strike those who continued as customers. This kind of pressure is wrong, but the law as presently construed allows it.

The Taft-Hartley Act should be made a still better law by plugging such loopholes.

A side show may develop into the main show as 1954 progresses. If the unions prove as determined as they claim on their current version of the guaranteed wage, that issue could become the important management-labor question of the year.

NATURAL RESOURCES

The lighted evergreen, which has become a symbol of Christmas in this country, now represents—along with wreaths, holly and yule logs—a \$50,000,000 retail business.

Although about a dozen companies handle more than half this business, more and more small farmers are finding that marketing these trees is profitable. Each year new plantations devoted exclusively to raising Christmas trees are established.

In recent years about 30,000,000 trees—roughly seven for each ten families—have been sold in the United States. This year's sales are expected to reach 32,000,000—two thirds of them produced here, the rest in Canada.

Holly wreaths will be plentiful, too, the bulk of them coming from commercial holly orchards.

The Christmas tree has become a recognized marketable product of the soil. Its production is consistent with good forest, soil and water use practices and it provides a source of income for many people.

TAXATION

Would you like to know what will be in the Internal Revenue Code Revision Bill now being readied for introduction early in the coming session of Congress?

Take a quick look at H.R. 6712 of

the Eightieth Congress which passed the House but ran out of time in the Senate.

It's a good bet that the new bill will pick up many of those ideas.

With few exceptions, the Republican members of the Ways and Means Committee are the same men who drafted the 1948 bill. Their pet ideas undoubtedly will appear again.

You can expect technical amendments which will ease taxpayer compliance problems but result in slight revenue losses.

Changes involving reduction of federal receipts will necessarily be few. Among the most probable are relaxation of depreciation requirements, lessening of the double tax on corporate dividends, relief for parents of school children working part time, relief for working mothers, corporate reorganizations, and improper accumulation of surplus.

TRANSPORTATION

The reorganization of the Interstate Commerce Commission should result in more efficient regulation of transport carriers in 1954. Also pending legislation to permit carriers to adjust rates during periods of rising costs stands a good chance of passage.

Motor carriers will find next year tougher from the point of view of enforcement of motor vehicle safety regulations. The ICC hopes especially to curtail violations resulting from on-the-spot leasing arrangements between regulated carriers and independent, unregulated truckers, with Congress deciding just how far the Commission will be permitted to go.

Commercial air carriers face several important issues, including the controversy over how far uncertified "nonskeds" shall be allowed to operate over cream routes in direct competition with certified trunk-line carriers; whether federal aid for airport construction will continue; whether future airmail subsidies will be affected by transfer or responsibility for payment directly to the CAB, and whether current investigations of the CAB will result in any basic policy changes toward commercial aviation. Finally the question of user charges for federal navigational aids will become a live issue.

dogs put teeth in store



JOE COVELLO—BLACK STAR

INDUSTRY'S endless search for college-trained specialists has gone to the dogs. Just as the oil business seeks out promising young engineering graduates and sales managers entrap prominent left tackles so, today, scouts from major department stores, large warehouses, and famous museums are prowling the campus of Canine College in Redding, Conn., in search of bright young pups who can become an asset to the firm.

Canine College—that's its name, so help me—is 11 acres of New England countryside near the lush suburbia of Westchester and Fairfield counties. Here many of America's largest estates and ulcers nestle within commuting distance of Madison Avenue and Wall Street.

This rich area supplies the college with many students because the diversified curriculum runs all the way from teaching a Pekinese the difference between a Ming vase and a fire hydrant to instilling in 90 pounds of Doberman pinscher the know-how required to kill a man on order.

John Behan, called "Mike," is a youngish veteran of the armed services K-9 Corps, and headmaster at the college. About half his students are in attendance simply to improve their manners but the other half are training for more arduous tasks ranging from antikidnaping to the basic job of killing or getting killed.

Mr. Behan's dogs are scattered throughout the nation and today he is working on a backlog that rivals Cadillac's. One of his animals pat-

ters alongside Irving Berlin, who likes to go for long walks in search of postmidnight inspiration. Another quietly patrols singer Jimmy Melton's estate guarding against kidnapers. Others range the warehouses, storage spaces, and selling areas of Macy's in New York, Jordan-Marsh in Boston, and the International Business Machines plant in Poughkeepsie. Many snore gently under barroom cash registers in holdup centers of New York City, each animal carefully trained to ignore the drunk and attack the gun toter. They are, of course, all watchdogs but they no more resemble the watchdog than the Model T resembles the Sabrejet.

Mr. Behan is that rarity, a dog trainer who likes dogs. As a kid he mowed lawns and ran errands to earn

protection

Animals trained
to hunt
down prowlers
are the
newest weapon
in the
watchman's
arsenal

By **BILL SLOCUM**



ALFRED GESCHEIDT—BLACK STAR

\$50 to buy himself a good collie. He wore a Coast Guard uniform during the war but trained animals for all the services. When Mike was discharged he and his younger brother, Spike, bought the Redding campus and went into the business of training dogs. The success of four of his dogs at Macy's in New York has brought to his campus scouts from such widely different ventures as Woolworth's, where the merchandise is technically of the nickel and dime variety, and the Metropolitan Museum of Art, where the products on display actually are priceless.

Mr. Behan found his career in the service. "They had a lot of good dog trainers in the Coast Guard," he says. "Most of them were Europeans who looked like lion tamers with

their puttees, jodhpurs, and whips. They acted like Prussian drill masters, which in most cases they were. I didn't discard all their theories. Just their favorite one. You don't need any talent to make a dog mean. But it takes some skill, I believe, to make him only as mean as you want him to be when you want him to be. My dogs are trained to act like guns. The man handling a gun or a dog must know what he is doing. Then neither will go off unless the man in control desires it."

It takes at least six months to train a "protection" dog. It is hard work for the dog and the trainer. Behan doesn't coddle his pupils, but he says, "I don't flog dogs, either. I find that thoroughly unpleasant for myself and completely destructive in

building the pattern I attempt to instill in an animal. I've seen dogs abused in training. A lot of short cuts were taken during the war—in dog training and in human training—and a mean dog could patrol—on a lead. A dog that hated everybody but his two handlers was useful. But what happened if the trainers were unavailable? So, today we teach our animals a job but we don't destroy their dispositions."

Mr. Behan says a dog's personality shows at seven or eight months and he buys them for training just before their first birthday. "I look for the same thing a chief of police looks for in his rookies," he explains. "I don't want a bully and I don't want a naturally mean dog. He must be intelligent but not aggressive in the

'show-off' sense. I study the pups to see how they react when the going is tough and how they react when they are at home. In other words, like a good cop, a dog must be tough and courageous on the beat and a nice guy in his own home." Mr. Behan is somewhat discouraged about the resemblance that exists between dogs and humans. "Some dogs are lazy, some are thieves, some are stupid, some are greedy and right on down the line. You have to look for the good traits in the pups. It's too tough to try to instill them in training."

That's the reason Mr. Behan will do anything with a dog but breed for the market. "If I had a kennel full of my own Dobermans," he says, "I would lean toward my own pups no matter how hard I tried to judge them dispassionately. So, I go all over the East looking for what I want. Then I buy them." He looked at 60 pups to buy four Dobermans for Macy's; and 40 more to pick out a pair to train for Jordan-Marsh.

The four Macy animals, two of each sex, are strikingly handsome

was offended by my pleased astonishment. "Naturally she obeyed you," he snorted. "If she hadn't then everything I told you out here the other day was a lie." Then he added, "Sure, they look and act mean but if they come out here tonight they can play with my kids. I'll let anybody I know of any age play with the Macy dogs providing I know the person's characteristics. Why, we showed the dogs before a packed Madison Square Garden and then brought a six-year-old girl out of the audience to pet the dogs. She wasn't a plant. She'd never seen the dogs before. But I'd talked to her and I knew she wouldn't scare the animals, nor be scared."

Protection dogs, such as Macy's animals, are the ultimate in training, of course, and therefore the ultimate in controlled viciousness. A dog must be trained for a specific job, not just trained. For instance, in preparing a dog to protect the Melton child against kidnapping Behan bought a good-looking pup that would grow into a large animal. He

ment cannot be sadistic, nor can it be token. A light clip on the jaw is about all. And there can be no screaming or raging at a dog because hysteria is hysteria whether you are dealing with a human or an animal and it transfers quickly. Get your dog to admire you."

A high degree of training must be poured into dogs that will mix with strangers. At Canine College the animal is taught to attack on command or at the sight of a weapon. Such training is used for animals installed in bars and grills. For such situations a dog really needs a college education because he must learn to do things that are not natural to him.

"It's the 'brake' you must instill in such dogs to make them useful," Behan explains. "I can train any dog to attack a man who draws a knife from his pocket. The trick is to be able to stop the dog in midflight when the man who drew the knife starts to use it to pare his nails. That's the 'brake.' It takes patience to instill the 'brake.' But without it the dog is useless and dangerous."

Mr. Behan sees many uses for his dogs that have not been tried. Obviously he is not seeking more business because recently he sent a famous merchandiser away somewhat baffled. The man had asked Behan his price for training a dog. "A thousand dollars will cover everything," Behan replied.

The merchant found the price reasonable and continued with, "We'd want 50 dogs. How much would you charge for such a package?" Behan's answer was immediate, "That would be \$50,000, of course."

It happened that the man represented a firm with vast fiscal strength built squarely on the principle of mass purchasing at the wholesale level with attendant discounts. This economic theory was explained to Behan but left him unimpressed. "I haven't got a die for stamping these dogs out," he said. "It takes 50 times longer to train 50 dogs than it does to train one."

So, it is not lack of business that leads Behan to argue that police departments of larger cities should have a couple of his animals. New York City, above all others. New York has a vexing problem, to put it mildly, regarding the evolution of its famous Central Park from a pastoral retreat for brick-weary citizens to a jungle of criminal assault and mugging. "No mugger would hide long in any bush if they patrolled the park with a half dozen dogs," Behan says.

However, New York police look coldly on dogs because of a tragedy 35 years ago when, during a parade,

(Continued on page 80)



With his handler looking on, one of Macy's canine cops jumps through a window used for training

brutes. The males weigh about 90 pounds each, or about ten more than the females. Handsome or not, they look mean and they act mean. They growled and yapped and lunged at me when I appeared at their luxurious kennels atop the Macy building, 20 floors above the busiest street in the world. After a delicate and lengthy introduction by their handlers I was able to take one and put her through a mild workout. Thirty minutes after she had tried to knock down a steel door to get at me she was obeying my faltering commands. I was her master because she permitted it; she knew I was petrified.

When I reported this to Behan he

trained it in basic obedience, no more, and put it in the Melton home. The child also was subjected to some conditioning for handling the animal. The dog had to like the child (which is no trick for a dog) and respect it (which is something else again). Getting a dog to like the child, or anybody, does not mean letting the person feed the animal. Behan says, "Dogs don't fall in love with anybody who feeds them any more than your baby does. It's friendship and respect. Always reward with a pat and a kind word for a deed well done. Equally quick punishment should be meted out when the dog is disobedient. The punish-

Letters TO THE EDITOR

Middle East Oil Reacts Here

NPCOIT FP107 PR.GFA265 DPR

GREAT FALLS MONT NOV 2 313 PMM

YOUR ARTICLE "MIDDLE EAST OIL REACTS HERE" GIVES DISTORTED PICTURE OF OIL IMPORT SITUATION BECAUSE IT CONTAINS CLEAR IMPLICATION OIL IMPORTS ARE NEEDED BECAUSE OF INABILITY OF U. S. PRODUCERS TO MEET DOMESTIC NEEDS.

THE ARTICLE COMPARES U. S. PRODUCTION WITH U. S. CONSUMPTION AND POINTS TO THE DEFICIT AS PROOF OF THE NEED FOR IMPORTS.

NOT ONCE DOES THE ARTICLE, AIMED AT THE GENERAL READERSHIP, MENTION WHAT EVERY OIL MAN KNOWS, THAT THE U. S. PRODUCTION SLUMP IS CAUSED SOLELY BY ARBITRARY CURTAILMENT OF PRODUCTION BY STATE REGULATORY BODIES, WITH WELLS IN SOME STATES CUT IN DAILY OUTPUT, AND ON TOP OF THAT LIMITED TO 18 DAYS' PRODUCTION PER MONTH.

THE CURTAILMENTS REFLECT AN EFFORT ON THE PART OF THE DOMESTIC INDUSTRY TO PREVENT COMPLETE CHAOS AND DEMORALIZATION OF THE CRUDE PRICE STRUCTURE. THIS IS MADE NECESSARY BY OUTRIGHT REFUSAL OF IMPORTING COMPANIES TO LIMIT THEIR IMPORTS TO A REASONABLE PERCENTAGE OF U. S. CONSUMPTION, AND BY FAILURE ON THEIR PART TO INDICATE THAT THEY INTEND TO DO ANYTHING BUT CONTINUE THE POLICY OF UNRESTRICTED IMPORTS.

IT SEEMS TO BE A QUESTION OF WHETHER THE WELFARE OF IBN SAUD IS OF MORE CONSEQUENCE THAN THE STABILITY OF THE DOMESTIC OIL INDUSTRY.

THE HIGH-SOUNDING SLOGAN "TRADE, NOT AID" IN THIS INSTANCE FALLS RATHER FLAT. DOMESTIC PRODUCERS WOULD LIKE TO FEEL THAT THEY, THEIR EMPLOYEES AND THEIR FAMILIES, ARE ENTITLED TO THE SAME CONSIDERATION AS IS NOW BEING GIVEN THE TOTALITARIAN RULERS OF LANDS FROM WHICH OIL IS BEING IMPORTED.

A. H. RAYMOND,

EDITOR MONTANA OIL JOURNAL, GREAT FALLS, MONT.

The capacity to produce

Never have I seen an article so misleading as "Middle East Oil Reacts Here" in your November issue.

Outrageous conclusions are drawn from certain statistics:

Item: U. S. oil production is said to have been 7,132,000 barrels daily in the first six months of 1953; consumption is said to have been 8,147,000 barrels daily. In what must set a new record for a jump to a conclusion, the author says this "is the measure of our oil deficit—a whopping (sic) shortage of about 1,000,000 barrels a day."

The author evidently has never heard of the furrowed brows and the torn nerves of the various administrative bodies of the oil producing states of Texas, Oklahoma, Kansas, and Louisiana, among others, because they have been forced to order curtailment of oil production to avoid wasteful accumulation of oil in above-ground storage. Even with this action, storage of oil and its products has reached a postwar

high in recent weeks—hardly an indication of a "deficit."

In fact, the daily rate of production is almost meaningless as a measure of U. S. self-sufficiency in oil. If the author really desires to make such a measurement, rather than prove a preconceived point, he will concern himself with the nation's *capacity* to produce.

Item: "Examining our reserve position, we again find a situation that can be described as one of galloping (sic, again) deficit." Crude oil reserves figures are cited—natural gas liquids reserves, which are an integral part of our liquid hydrocarbon resources, are ignored—to show that they were at a 20 year supply level five years ago but now are sufficient for only "a dozen or so years." Completely ignored is the fact that our crude oil reserves continue to increase year after year, in spite of our continued increases in demand and production. If natural gas liquids reserves are added, as properly

they should be, our reserves become even more substantial, and the outlook even better.

U. S. oil reserves are a function of demand for U. S. oil. This is the way it goes: The higher the demand, the higher the drilling rate. The higher the drilling rate, the more numerous the discoveries of oil. The more numerous the discoveries of oil, the greater the additions to reserves. That is the unbroken trend in this industry. It has resulted in liquid hydrocarbon reserves equivalent to 12 to 15 years of demand for many years past, and until the trend shows definite and continuing signs of change, there can be no credible evidence that we ever will run out of oil.

The author might refer to a speech made a year or more ago by Eugene Holman, president of the Standard Oil Company (N. J.) in which Mr. Holman said, in effect, that the oil reserves of this country could be likened to a series of storerooms and that when the key to the door of one had been found and the oil removed, it meant only that the key to the door of the next room must be found and vast additional reserves developed. I might add that the history of the oil industry gives assurance that its scientists and technicians are remarkably expert key-finders.

Item: "Where heretofore the prospect of eventual exhaustion of our oil reserves has been largely a matter of controversy and speculation, now it is merely a matter of time." The essence of the controversy is now and always has been just that—"the matter of time." The wolf-criers have always said that we are running out of oil, while those who had confidence in—and knowledge of—the most dynamic oil industry on the face of the earth have stood steadfast in saying that there is no danger of our running out of oil in the foreseeable future. They still say so. The performance of the industry to this day has proved them right. The two camps have in no way changed their basic positions; the controversy, such as it is, is still over the date of exhaustion of our oil resources. Some say "tomorrow"; some say "never." The author has sided with the "tomorrow" camp, blithely ignoring the fact that "tomorrow" has been coming for at least 35 years and isn't here yet and that we now have the highest reserves in our history, which the author's figures show, but which he neglects to point out.

Item: "But the fact (sic) is that this country now has a deficit of 1,000,000 barrels a day and is importing that amount from various foreign countries." There is no such fact as a million-barrel deficit. The question is that hoary one: "Which came first, the hen

(Continued on page 61)



TRYING TO LICK A TRAFFIC PROBLEM? The Urban Transit program tells how to meet the ever-growing problem of traffic congestion and inadequate parking facilities. Designed to stir

public action, the unusual film "Going Places" dramatizes the strangulation of our cities by the traffic monster and shows the most economical and practical solution.

Four dramatic film programs to help solve your community problems

As your city expands, its problems grow. As concentrated populations spread to the suburbs, additional supplies of water must be provided, sewage facilities become increasingly inadequate, streets become jammed during rush hours. As communities expand, a demand for better recreational facilities is created.

Often it is only through co-operative community action that cities can meet these problems. General Electric offers a series of timely film programs *through your local electric utility* to help you stimulate your community's thinking about solutions to its particular problems. Each program consists of an educational motion

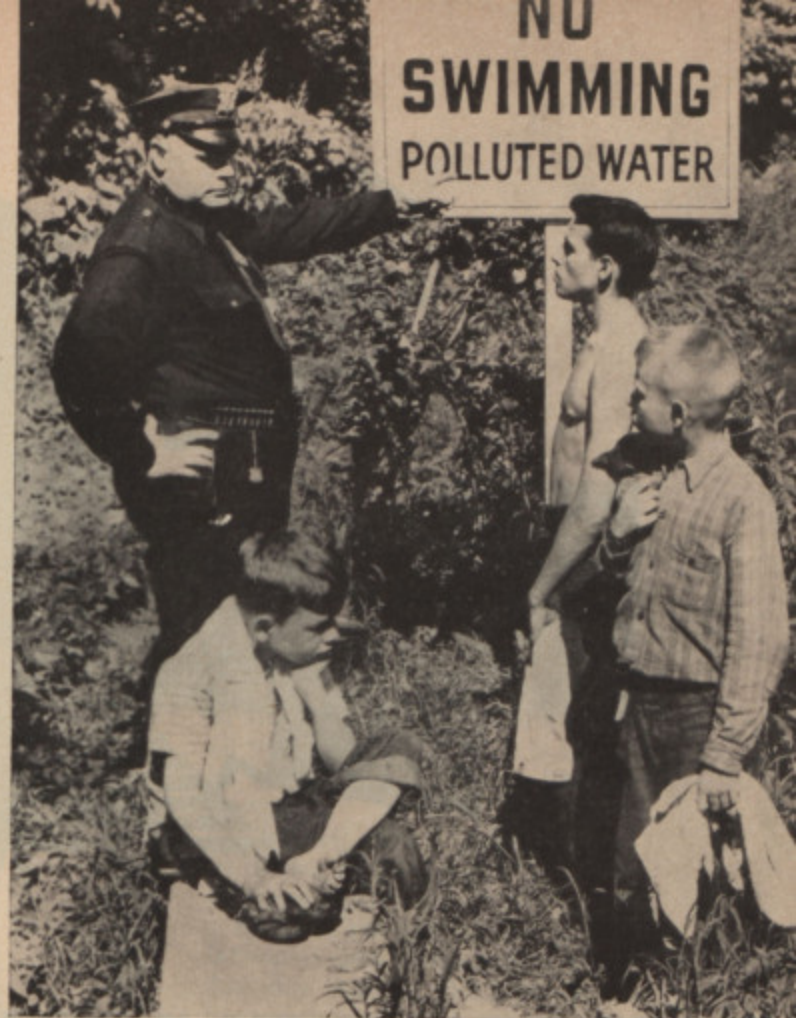
picture or slidefilm, an authoritative manual for civic leaders, and supplementary literature. Non-commercial in nature, each of these programs helps to arouse public support for community improvement by showing you how other progressive communities have met the same problems.

These programs are available from General Electric on a loan basis, or they may be purchased at reproduction cost. If you wish more information on these film programs, *contact your electric utility*. Or you can call your local G-E Apparatus Sales Office, or mail the coupon to General Electric Company, Schenectady 5, N. Y.

More Power to America



GIVE YOUR CITY "A CHANCE TO PLAY." A film program which includes a "March of Time" documentary shows that adequate recreation facilities are as necessary as good schools, public health facilities. The manual for civic leaders will help you organize for community action on this issue.



DOES YOUR CITY NEED CLEAN WATERS? The prize-winning film, "Clean Waters," has helped many cities win public support for elimination of sewage and pollution in lakes and streams. This program is popular with civic organizations like Chambers of Commerce, Service Clubs, and conservation groups.



IS YOUR WATER SUPPLY ADEQUATE? You can enlist support for improvement or extension of water-supply facilities with this kit, which includes the film "Pipeline to the Clouds," winner of the international "Oscar" for documentaries in Milan, Italy.

CALL YOUR ELECTRIC UTILITY, YOUR G-E APPARATUS SALES OFFICE, OR MAIL THIS COUPON TO:

**General Electric Company
Apparatus Sales Division, Sec. C684-2
Schenectady 5, N. Y.**

Yes, I am interested in the following programs:

- ☒ for details and prices
☒ on a loan basis

- ☐ (GEA-4938-5A) **SEWAGE TREATMENT**
(25-minute, 16-mm, sound-color motion picture).
- ☐ (GEA-4938-15) **OUTDOOR RECREATION**
(20-minute, 16-mm, sound motion picture)
- ☐ (GEA-4938-17) **WATER SUPPLY**
(25-minute, 16-mm, sound-color motion picture)
- ☐ (GEA-4938-20) **URBAN TRANSIT**
(20-minute, 16-mm, sound-color motion picture)

NAME

TITLE

STREET

CITY **STATE**

GENERAL  **ELECTRIC**



... AND ELECTIONS, TOO By DON YOUNG

REPUBLICANS in Congress are running scared—and well they might.

They realize that the results of the congressional elections next November not only will determine control of the Senate and House but will help shape the course of the Presidential election in 1956.

The Democrats, on the other hand, contentedly rely on the political axiom that a party which elects a President, as the Republicans did 13 months ago, suffers losses in the congressional elections two years later.

Politically, the work of the new session which begins Jan. 6 will be appraised in one of two ways: National issues will decide the 1954 elections; or the very inevitability of the elections will help decide national issues.

The facts are plain. This election year Congress will come face to face with an unusually heavy work load. And all 435 House seats and 35 of the 96 Senate seats are at stake in the November, 1954, elections.

Defense spending, higher taxes, farm subsidies—they alone would constitute the basic work of an ordinary session. But add the Taft-Hartley Act, postal rates, foreign trade, public housing, social security—and you have a program loaded with political dynamite.

When President Eisenhower was inaugurated, he found in the Senate 48 Republicans, 47 Democrats and one Independent. In the House were 221 Republicans, 211 Democrats, one Independent and two vacancies. The ratios have remained as close since then. As a matter of fact, the appointment of a Democrat to succeed the late Sen. Robert A. Taft actually put the Republicans in a minority in the Senate.

Some say Mr. Eisenhower pulled through with him some members of Congress who otherwise might not have been elected. The districts where that happened are at the top of everybody's doubtful list for 1954.

From the standpoint of statistics, both sides know

where to concentrate their attention. For instance, 86 House members from 34 states were elected last year with 55 per cent or less of the vote in their districts. Ten of these close districts were in Illinois, nine in Pennsylvania and seven in New York. This hairs-breadth list includes three Democrats who are completing service of 32 years, 22 years and 20 years, respectively. It also includes 37 members—25 Republicans and 12 Democrats—who were elected for the first time.

In the Senate, Republicans this year hold 14 of the seats up for decision next year. Most of these are in "safe" G.O.P. states. Twelve of the 21 Democratic seats to be contested are in southern states which traditionally vote Democratic in congressional elections.

These lists are coming under careful scrutiny. Campaigners are deleting a name here or there where particular situations that will not recur made the race close two years ago. They are adding names of those who anticipate trouble.

President Eisenhower himself will determine the legislative course of Congress when he sends three annual messages to Congress in January. In the state of the union message, he will outline his general plans, both from the standpoint of Congress and the executive branch. In the budget message he will detail his fiscal program. In a third message, he will discuss the economic health of the nation, and specific steps he believes necessary to sustain it.

Then the stage will be set for showdowns. The Republican leaders on Capitol Hill will start the process of transforming the recommendations into legislation. The party will not be united on all points because there will be a hard core of ultraconservatives. On the other hand, the Democrats, who have maintained a discreet attitude of watchful waiting, are

An ancient river provided these ideal plant sites

One of the most nearly perfect industrial locations we have ever seen is the result of an unusual geological history. Ages ago a once-great river cut a mile and a half-wide channel through what is now southwestern Ohio. The glacier filled it deep with gravel. After the glacier had passed, new rivers dug new channels and the

ancient valley is now a broad, gently rolling plain set in the Ohio hills.

Down in the gravel a great stream of fine water flows through the old river bed. Plenty more water is available from the nearby Miami River.

While this is a rural area, it is only 12 miles from the center of Hamilton and 17 miles from the heart of Cin-

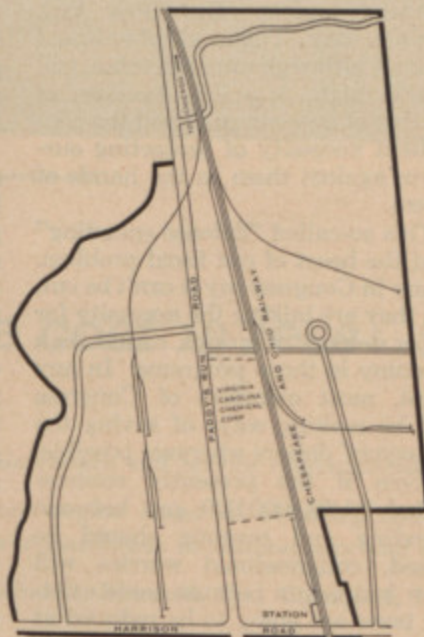
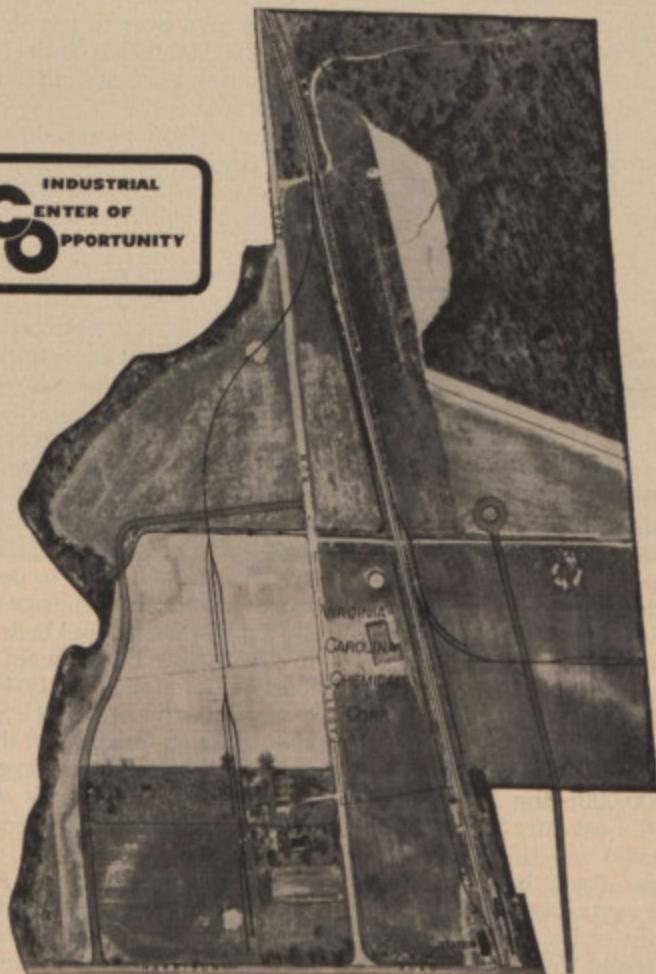
cinnati. The fastest-growing suburban areas of Cincinnati already reach out to within 8 or 10 miles of the site, so ample labor is readily available.

The main line of the Chesapeake and Ohio Railway crosses the area and connects with other trunk lines to afford excellent transportation to all parts of the country. It is served by the Cincinnati Gas & Electric Company.

The C&O owns 88 acres alongside its tracks. There is plenty of adjoining acreage available.

Seldom have we been able to offer industrial sites which had so many desirable features. For a Pin-Point Survey giving full information write to: Chesapeake and Ohio Railway, Industrial Development Department, Cleveland 1, Ohio, Detroit, Michigan, or Huntington, W. Va.

Proposed development of part of the Fernald, Ohio industrial area.



Chesapeake and Ohio Railway

SERVING

VIRGINIA • WEST VIRGINIA • KENTUCKY • OHIO
INDIANA • MICHIGAN • SOUTHERN ONTARIO

expected to "come out swinging." At this point it will suddenly occur to many members of Congress that each major subject on which they will vote has a local application. Any one, or a combination of them, could spell victory or defeat.

Appropriations, although not the most glamorous or exciting subject, could well be the most explosive, because these set the stage for tax increases or decreases, and for the magnitude of federal functions.

Congress not only appropriates money—it also grants authority for government agencies to make future commitments for which money must be provided. So Congress cannot specifically control actual federal spending in a given year. This is determined by a combination of appropriations made, commitments made, and the executive department's decision to spend or not to spend up to the hilt.

Before leaving office last January, President Truman laid before Congress a budget which contemplated expenditures this fiscal year of \$78,600,000,000, receipts of \$68,700,000,000, and a resulting deficit of \$9,900,000,000. In August, the Budget Bureau found that the administration and Congress had been economy-minded. It estimated expenditures at \$72,100,000,000, receipts at \$68,300,000,000 and a deficit of only \$3,800,000,000.

President Eisenhower and Congress would like to cut expenditures even more in an effort to achieve a balanced budget. But their task won't be easy. The needs of national defense, although unpredictable, will remain high, primarily because of the cost of new weapons and the consequent necessity of protecting ourselves against them in the hands of others.

This so-called "defense spending" is at the heart of our fiscal problem. Many in Congress say it can't be cut, but they are talking the necessity for major defense programs, rather than economy in those programs. In any event, most members of Congress will be seeking ways of saving the taxpayers' dollars wherever possible.

Even if the presently contemplated \$3,800,000,000 gap between spending and revenue should be closed, congressional worries will have just begun because some existing taxes are going to be reduced at the end of this year; others are scheduled to be cut next March 31. Treasury estimates are that as much as \$8,000,000,000 in revenue may be lost, so there could be a new deficit of about that amount.

Thus each member of Congress who wants a balanced budget faces difficult alternatives—cut expendi-

tures another \$10,000,000,000, or raise taxes substantially.

The Treasury is seriously considering the latter.

On Dec. 31, the 1951 increases in personal income taxes and the excess profits tax expire. Next March 31, the basic tax on business is scheduled for reduction from 52 per cent to 47 per cent. A reduction in some excises also is scheduled. The Treasury says it will not interfere with the Dec. 31 expirations. It is silent on what it will recommend for March 31.

The Treasury, assuming that expenditures will not be cut to the expected level of revenues, believes that taxes must be kept fairly high. Secretary George Humphrey is studying about 40 new sources of revenue, including more manufacturers' excise taxes.

The perennial problem of maintaining a strong agricultural economy will involve major political discussions. At issue are rigid versus flexible price supports.

The present law, which expires next year, says that farmers should be guaranteed 90 per cent of parity for basic crops. Congress set this level in 1942. Parity, unique to this country, is a statutory formula de-



signed for use in stabilizing buying power of the farmer's dollar. It is geared to the farmer's buying power in the 1910-14 period.

Ninety per cent of parity has bolstered farm income, but it also has led to production of tremendous surpluses, which have gone into government storage and represent a potential loss of many millions of dollars to the taxpayers.

This loss in the past fiscal year was \$61,000,000; the year before, \$67,000,000. Last July 31, more than \$3,500,000,000 was tied up in price support operations, but no one can guess with certainty whether there will be profit or loss this fiscal year.

If the present law is permitted to expire, farmers would revert to a measure calling for flexible price supports. The percentage of parity the government would guarantee would fluctuate with supply and demand, within a certain range.

All senators up for re-election in 1954 have large farm constituencies. So do all but a few House members.

Highway aid must come before the next Congress, too. Although the biennial authorization for grants to

the states doesn't expire until 1955, Congress always acts a year in advance so that state legislatures can make their plans.

Since 1916, the federal and state governments have matched, on a 50-50 basis, the amount of money that is spent on highways. The current federal grant is more than \$500,000,000. Some contend this grant should be raised, primarily because more than 60 per cent of our roads can be considered below "tolerable standards." Thousands of miles of new and improved roads are needed badly.

The estimated cost of doing the backlog work alone on the federal aid network is \$32,000,000,000 and experts say that as much as \$7,000,000,000 should be spent annually over the next 15 years to put all of America's roads and streets in proper shape. The 1952 expenditure was \$5,000,000,000.

Some say the federal government should turn over to the states all of the \$900,000,000 it collects as general revenue from the taxes on motor fuel.

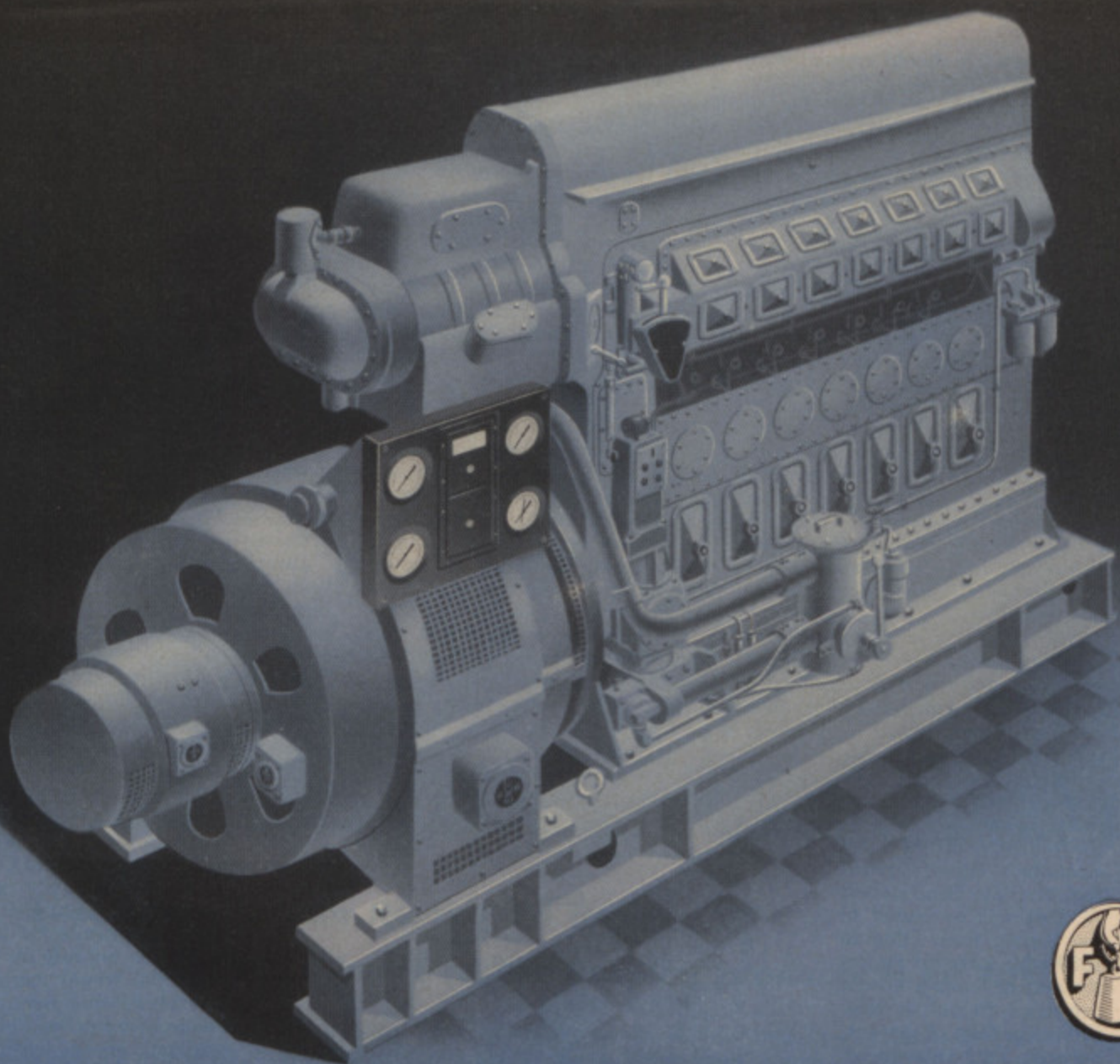
Another argument is that Congress take the federal government out of the gasoline tax field entirely, leaving that prolific revenue source to the states.

All members of Congress are inclined to listen when the folks back home call for better streets and highways. But they also think of this need as part of the cost of government.

Foreign trade will come before Congress because the Trade Agreements Act expires in June. This will bring the usual arguments about high versus low tariffs. The House and Senate will have to decide once more how much authority to negotiate agreements should be transferred to the State Department and the Tariff Commission. Only 40 per cent of the dollar volume of U. S. imports is subject to tariffs, but that leaves ample room for debate on protection of individual industries which are peculiarly affected by competition from abroad.

The Trade Agreements Act is only a part of a broad problem. In the recent session Congress simplified customs regulations in an effort to promote more trade. On the other hand, it trimmed sharply amounts recommended for foreign military and economic aid. Mr. Truman asked for \$7,600,000,000. President Eisenhower recommended \$5,100,000,000. Congress appropriated \$4,500,000,000.

In view of big surpluses of some commodities in the United States, and in view of the necessity to import some vital national defense ma-



The Fairbanks-Morse Opposed Piston Diesel Model 38F 5 1/4. 225 to 750 horsepower.
Diesel Dual Fuel and Spark-ignition options.
Other O-P engines available in horsepower ratings to 2400.

... the price is more but the cost is less

You can buy many diesels for a little less than this Fairbanks-Morse OPPOSED PISTON Diesel ... but no engine working at rated load can deliver power more reliably at less cost. The slightly higher price is quickly offset by the freedom from

maintenance and service interruptions.

More engine hours of unfailing service mean fewer man-hours in maintenance and repair.

Fairbanks, Morse & Co., Chicago 5, Illinois



FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL AND DUAL FUEL ENGINES • DIESEL LOCOMOTIVES • RAIL CARS • ELECTRICAL MACHINERY • PUMPS • SCALES • HOME WATER SERVICE EQUIPMENT • FARM MACHINERY • MAGNETOS

terials, how free should international trade be?

Housing is on the "must" list of issues because Congress ordered itself to decide next year whether public housing should be continued.

Capitol Hill has found itself sharply divided on this question for years. Urban members clamor for more and better public housing to keep pace with the population shift to the cities. Other members think in terms of the cost of such construction to the taxpayers. They are concerned, too, about federal encroachment on the private housing industry.

President Eisenhower said recently that he would recommend changes in the Taft-Hartley Act to Congress. A coalition of conservative Democrats and northern Republicans enacted the law in 1947 and thwarted a drive to repeal it in 1949.

The issue has not arisen in the past four years because the coalition was reasonably well satisfied with the law and advocates of change were not as powerful.

Some Republican congressional leaders believe that concessions pleasing to the unions are vital to the outcome of the 1954 elections. Others recall that the late Sen. Robert A. Taft was re-elected to the Senate from Ohio in 1950 with a record majority despite labor's all-out campaign to unseat him. Subsequently, however, Senator Taft introduced, for discussion purposes, a number of changes which labor sought in the law.

If the administration threw its full weight into the fight for weakening amendments, the northern Republican wing of the coalition would split badly and a revision bill might be passed.

Two complicated controversies in the labor management law stand out. One is the extent, if any, to which federal laws should supersede state laws in regulating local disputes. The second is whether any kind of secondary boycotts should be permitted. The question of how to handle national strikes always generates considerable heat as does discussion of the National Labor Relations Board's administration of the law. Currently, however, those controversies are politically of secondary importance.

The Taft-Hartley issue was kept alive long after Congress recessed. Secretary of Labor Durkin thought

he had an agreement with the President to submit 19 amendments to Congress. He resigned when he found that the changes would not be sent. Charges and countercharges about breaking "agreements" were made and denied, but they served only to befuddle those who were trying to figure out just what the administration planned to do.

The Post Office Department has operated in the red most of the time. Since World War II, the deficit has averaged \$430,000,000. The total deficits, piled up over more than a century, now require more than \$100,000,000 in interest alone.

So Postmaster General Summerfield asked Congress in its closing days to raise rates to eliminate most of the deficit. Under his program, it would cost considerably more to mail almost anything; an out-of-town letter, for instance, would cost four cents.

The resulting howl caused Congress to decide against immediate action, to await studies by its own committees. Mr. Summerfield recently

year. Originally Congress set up a dual program. The "young" were to start contributing through a payroll tax toward a fund for retirement payments.

The "aged," with no opportunity to accumulate credits, would be paid through federal contributions to state relief programs. As the first program grew, the second was expected to disappear. But the number on the rolls of both Old Age and Survivors' Insurance and of Old Age Assistance has increased. Federal grants to the states for OAA now stand at \$800,000,000 annually.

One trouble is that OASI does not cover everyone; if it did, the need for federal relief to the aged would diminish and the federal government could withdraw from a field primarily reserved to the states.

But the money the "young" have been contributing is not piling up fast enough. True, this "reserve" now stands at \$18,000,000,000, but about \$200,000,000,000 would be required as a reserve against future obligations if the program were on a true insurance basis. As a matter of fact, trustees of the fund recently reported that the fund might be exhausted in about 40 years.

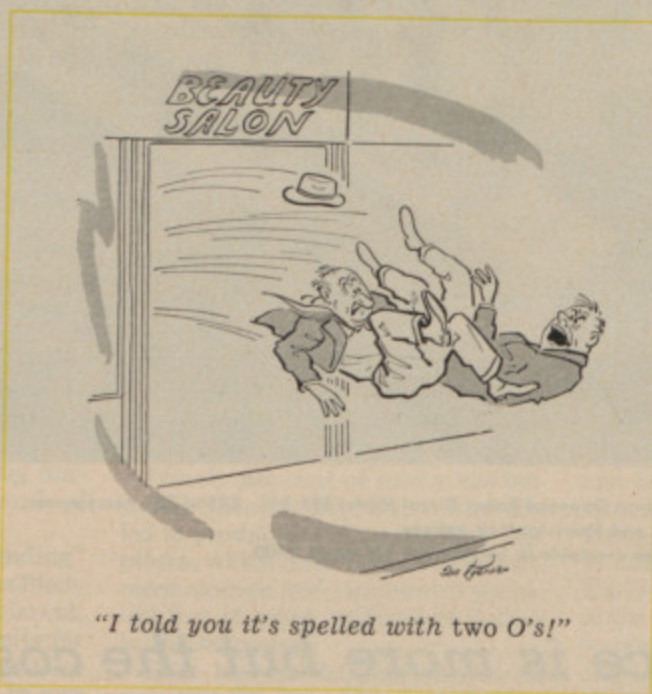
A switch to a pay-as-we-go basis would permit Congress to appropriate each year an amount equal to benefit payments for that year. The tax rate on the individual would increase as expenditures required. The reserve fund would be retained as a cushion against sharp changes in economic conditions which would reduce the amount of individual contributions.

While Congress debates these issues, it will be cocking an attentive ear to the work of two important federal investigating commissions. One is the Commission on Intergovernmental Relations, which is studying overlapping and duplication of federal and state functions, with federal grants-in-aid a major target.

The other is the Commission on Governmental Operations. It will look for ways to promote economy and efficiency in the federal government by eliminating functions and getting the government out of business. The old Hoover Commission didn't study elimination of functions; it only studied how those functions could be performed better.

These and other subjects will keep Congress busy when it returns Jan. 6.

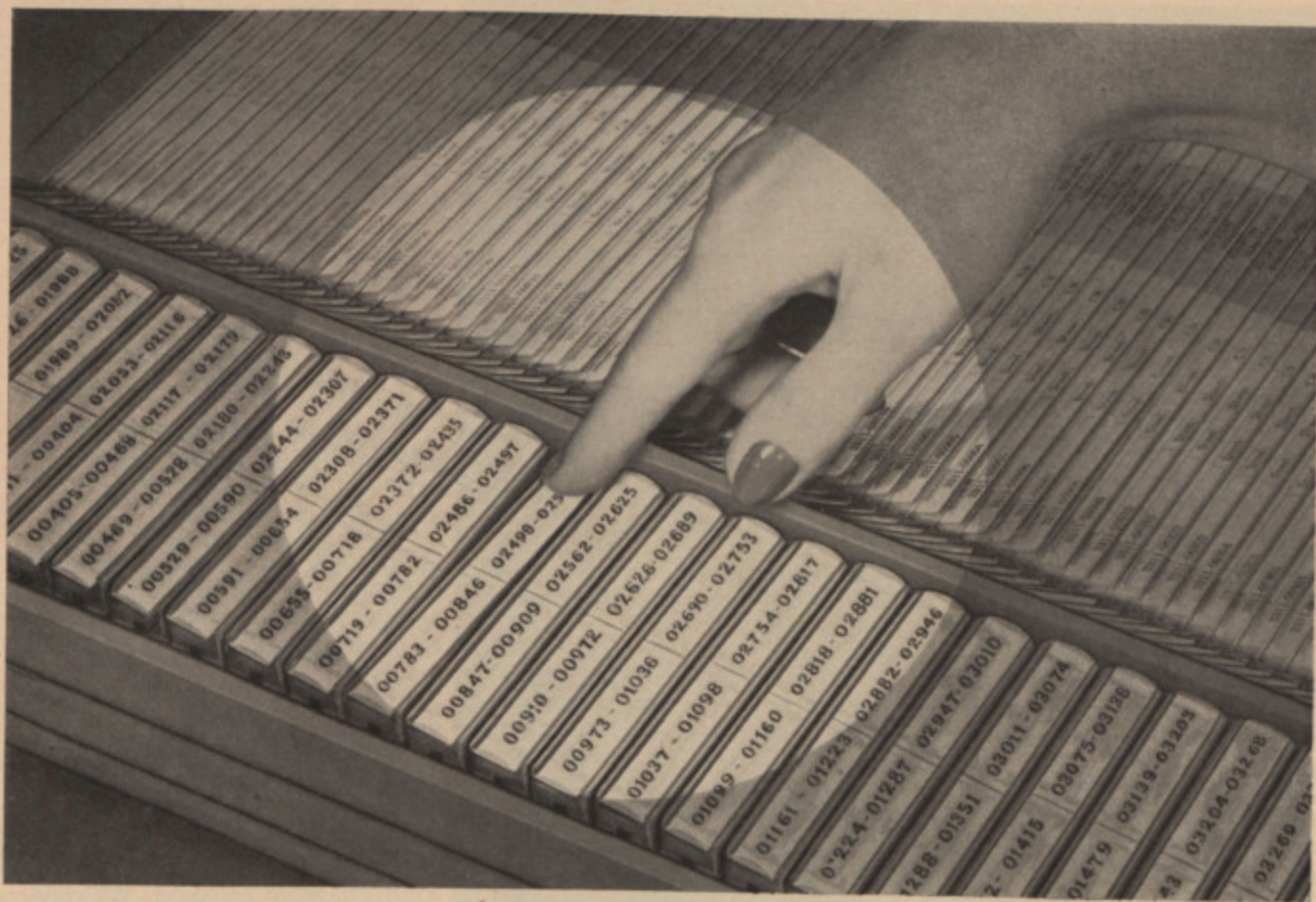
END



repeated his request for higher rates.

Here again is an issue which has a bearing on the government's fiscal situation. Yet it affects people in every state and congressional district.

The social security law enacted in 1935 admittedly needs revision. Some in Congress say benefits are not liberal enough; others say that the financing of even the present schedule is unsound. A House Ways and Means subcommittee currently is preparing a factual study on the experience under the Act. The full committee expects to conduct extensive hearings beginning early next



These **IDEAS** from Remington Rand...

boost record-keeping production by 30%!

How to keep track of 23,000 different parts, with inventories constantly in balance to prevent production delays and costly overstocking? This was the problem faced by the Cummins Engine Company, and a tough one it was.

The problem was solved by an idea from Remington Rand... *mechanized inventory control*. Now, Robot-Kardex units go through their electrified paces with electrifying speed, controlling this vast inventory down to the last nut and bolt. A mere touch of the index key and the slide containing any desired Kardex record comes to the clerk, positioned for rapid, convenient, desk-height posting and reference. Any one of over 4,000 records is at the fingertips in seconds! Kardex Visible Records

— housed and delivered by Robot-Kardex — save up to 30% on posting time — up to 59% on space — minimize physical fatigue — help to reduce employee turnover.

Good Example of Robot-Kardex Inventory and Production Control. Send for your FREE copy of CR909, "How Robot-Kardex Parts Control Saves Time and Money for the Cummins Engine Company." This Certified Report is full of eye-opening facts about up-to-the-minute inventory and production control. For your copy, and there's no obligation, call your Remington Rand man at our nearest office, or simply write to Remington Rand, Room 1470, 315 Fourth Ave., New York 10, N. Y.

Remington Rand

PROFIT-BUILDING **IDEAS** FOR BUSINESS



As Industry Sees Them

(Continued from page 29)

therefore, our financial resources, far beyond the present level—so that we may be able to tackle infinitely greater projects.

"I think we'll have certainly reached the moon in 50 years," he says firmly. "And I think we'll have done a lot of rocket-powered passenger work, at incredibly high speeds. . . . I can see practically unlimited speeds, like 50,000 miles an hour, outside of the atmosphere.

"We'll have to get out of the atmosphere, start making plans for it. And, of course, the only way we can do that is with the rocket-powered airplane."

The rocket power, Mr. Hibbard contends, could be a combination with atomic energy.

"The rocket motor," he explains, "is a closed-end tube in which an explosion is developed. The explosion sails out the back and it propels the tube toward the closed-end direction. . . . Any one of many things can give you the explosion inside there. Right now, of course, it's powder or some sort of liquid fuel such as we're using in the rocket-powered airplanes out at Muroc—but 50 years from now it'll certainly be atomic."

With the rocket-atomic combination, Mr. Hibbard says, aviation men of the year 2000 might achieve much greater speeds than 50,000 mph. Probably we wouldn't reach the speed of light. "But," he adds, "you can certainly move way up in that bracket."

Robert Gross, president of Lockheed, is much more pessimistic about rocket-atomic transports and extreme speeds. He contends that if a rocket-plane could escape from the atmosphere, speeds much greater than 50,000 mph could be achieved, but the *if*, he says, is too great. Once out in space, a rocket-plane could fly at practically limitless speeds, because there would be no air friction. But, to him, the problem of getting out of the high-friction atmosphere, which generates such great heat at high speed, seems insurmountable by the year 2000.

"Any material that was light enough to get you up there would burn up on the way," he points out.

Strangely enough, two of the most conservative of the minds consulted, J. V. Naish and his Convair associate, Frank Davis, are more optimistic about rocket speeds and man-made space satellites, assuming, they say, that there are military contracts to pay for the re-

search. This optimism is understandable considering that 90 per cent of Convair's business nowadays is in military contracts, and that the company is active in guided missile research.

At any rate, these chiefs of production and research and development, respectively, talk blandly about possible rocket speeds of Mach 22 and Mach 23, roughly translatable into 160,000 or 170,000 mph. Mr. Davis, in addition to saying satellites are possible, comments on their military utility:

"A satellite placed at the altitude and on the orbit that you want it to follow can serve as a good observation platform to see what's going on underneath you."

To become a satellite, he says, the man-made space police station would have to shoot out of the gravitational range of earth at a speed of seven and a half miles a second, which is to say, 27,000 mph. Then, having



assumed its place in the sky, it could settle down to a mere 19,800 mph.

But, Mr. Davis and Mr. Naish hasten to add, such tremendous speeds would depend on military contracts. The speeds of commercial airliners would lag far behind—probably only about 1,500 mph tops.

Most of the other experts agree that the problems of commercial travel beyond the 1,500 mph mark, Mach 2 or twice the speed of sound, are too tough to lick without fantastic outlays of money and engineering effort. Apparently, an airplane can fly at speeds up to 1,500 in the earth's atmosphere, but beyond that level the heat generated by air friction gets to be what the engineers mildly call critical; in other words, the aircraft and the people in it just burn up.

One answer would be to fly 200 miles up out of the earth's atmosphere in our transports, as Hall Hibbard cheerfully predicts. But then we still face the problem of slowing down when we come back to our earth destination.

"There are certain definite prob-

lems," says Mr. Davis, "like getting the thing turned around and stopped. You know it's going to take just as much energy to stop it as it did to get out there. It requires twice as much fuel, of whatever kind you have, to make a round trip back to the earth as the one-way trip."

Here is Mr. Davis' conservative prediction for the progression of transport speeds up to the year 2000:

"I think that, at the present rate, we'll go up to probably on the order of 500 or 550 miles an hour and probably remain there for 15 years at least.

"Then I think the next jump will probably be up to the vicinity of 1,000 or 1,500 and we'll probably remain there for some time."

Others agree, cautiously. Donald W. Douglas, the top Douglas official, says only that supersonic speeds will be flown in the year 2000. That could be anything more than 760 mph at sea level.

Bruce Smith, engineering leader of the Ryan Company, which is now the nation's biggest supplier of jet-plane parts, predicts that "economical transports will attain speeds approaching 1,000 miles an hour in the next 50 years. . . . High-speed transports will operate below 100,000 feet altitude, because of the time required for long climbs and descents."

Almost all of the authorities, conservative and bold alike, predict a good possibility of atomic-powered airplanes by the year 2000.

Mr. Gross: "I wonder if in 25 to 50 years it may not be possible to have some kind of a nuclear capsule—that's what I think the power's going to be."

Mr. Raymond: "In 50 years, atomic power will probably be used generally for military flight, thus giving unlimited range for both combat and transport aircraft."

Mr. Douglas: "Atomic power will be used in airplanes, and perhaps even greater use will be made of less dangerous sources of energy inherent in cosmic rays."

William E. Ballhaus, Northrop engineering chief: "Nuclear power is here now. Well before 50 years, we may see atomic-powered aircraft."

Mr. Schmued: "The state of the art is such that it is possible."

Mr. Smith: "In 50 years, atomic-powered delta-wing transports will be operated, if economically feasible. . . . Present concepts of fighter-interceptors and bomb-carrying aircraft may well be rendered obsolete by developments in the field of atomic power."

Mr. Davis: "I'm not sure whether the main source of power for transports in the year 2000 will be jet engines or nuclear energy. Probably

several kinds of power plants will be flying."

In the matter of private flying, there is no such universal agreement among the authorities, although the majority contend that as of the year 2000 the airplane will not have replaced the automobile as the common mode of transport.

The principal objection is traffic discipline.

Mr. Naish sums it up:

"As long as gravity is a basic law of physics, you could never build safety into something which is up over the earth's surface. . . . No matter what safety devices we can conjure up, there's no safety device that can keep you safe if you have a head-on collision in the air."

Mr. Davis: "I think two things would stop you: one is safety maintenance for the equipment, which the average person won't do, and the other is traffic discipline. Your penalties for a minor collision are just as high as they are for a major collision."

Messrs. Schmued and Ballhaus, whose company specializes in all-weather F-89 fighters and B-62 guided missiles, are like the Convair people, none too hopeful about private planes.

Says Mr. Schmued categorically: "The airplane won't be the equivalent of the auto, because of the impossibility of governing traffic as we do on the road. The road is an artery which forces a certain course, and you have a fixed altitude. We could have an electronic device which would steer an airplane away from another. But there are all kinds of messes you could get into. Imagine when you take off from your backyard to go to work; you have to climb up vertically through perhaps 2,000 planes passing at different altitudes."

Mr. Smith indicates the same opinion, though tersely:

"I see a substantial increase in the use of public commuter airlines rather than owner-user air commuting."

The Convair and Northrop experts concur in Mr. Smith's view that airborne buses, probably of some helicopter type, would form a large part of the air traffic pattern.

Mr. Raymond takes a more optimistic view of the average man's chances of flying his own plane in the year 2000, or even considerably before then:

"I think the average man will be using air travel much more generously than now because he will have found it the safest, most expeditious, and cheapest form of transportation. Some form of 'convertiplane' will probably have been developed, combining an ability to rise and descend



Here's a Hole

188,000,000 FEET DEEP!

One hundred and eighty-eight million feet down!...that's the total feet of hole your American Petroleum Industry drilled in 1952. It represents the 48,800 new wells they completed throughout the United States. So what? . . . So it means a greater reserve of oil than ever before in U.S. history. It's oil needed to meet the all-time peak demand of the American consumer . . . estimated as high as 8,022,000 barrels a day in the last quarter of 1952! . . . and it cost the industry 4 billion dollars to produce these truly outstanding results!

Cities Service drilled 375 miles of holes itself in 1952, carrying on exploration activities during the year that extended over 26 states, and into Canada and Mexico, and produced 43,000,000 barrels of liquid petroleum. Cities Service is proud to play its part in this tremendous effort to keep our standard of living the highest in the world . . . to keep America vital and strong for its role as the leader for world peace.



An Important part of the American Oil Scene

vertically with an ability to attain good normal performance.

"I've been thinking that while traffic problems in the air might be great, they might be greater on the ground. The only other thing you could do is burrow into the ground."

Messrs. Gross and Hibbard are even more optimistic about a large development in private flying. Both expressed great confidence in the ducted fan engine as the solution for the problem within a few years. A gadget of this sort has been reported flying in France. It consists of a tube with a fan in it, which has the effect of compressing air so that a jetlike propulsion results. It is neater and more powerful than the helicopter. The ducted fan avoids the huge propellers of the helicopter, and can bring twice or three times the forward speed.

Mr. Hibbard draws a detailed word picture of the gadget:

"This airplane will consist of a device which carries about the same number of passengers as you ordinarily carry today in a car. A pair of these ducted fan engines will permit it to rise and descend vertically and to maintain a level flight speed of 400 or 500 miles an hour. In addition, it's going to be simple to fly. These ducted fan engines will be rotatable on the airplane so when you want to let yourself up and down, the engines adjust themselves into a vertical position. When you get up among the treetops and want

to go forward, the engines rotate in the direction in which you want to go and propel you that way. The device will be so useful that it will be possible to make them at a very high rate, and that will make it possible to get the price down."

None of the experts in this symposium feel that atomic energy would be useful in private planes by the year 2000.

Shielding passengers from the dangerous gamma rays which are generated would involve heavy walls of lead or other insulator too cumbersome to handle.

Mr. Schmued is alarmed by the possibility of the use of atom power in light planes, in case some lighter insulator could be contrived.

"Everyone is mechanically inclined in the United States," he says. "They'd start tinkering with it and have plenty of trouble."

Most of the authorities concur that, by the year 2000, military aviation would be such a dire threat to the peoples of the world that as Robert Gross says: "Everybody, even the most awful creatures, will realize that it doesn't accomplish anything."

To this Mr. Hibbard adds: "I think the airplane will eliminate wars in 50 years by the sheer inability of anybody to get away from anybody else. In other words, those things anchored out in space, the rocket, high speed missiles with which you can see and photograph

anything that's going on, are possible, I'd say, within 15 years.

"By that time, we will have the ability to make the hydrogen bomb and drop it anywhere on earth."

Within ten years, Mr. Gross predicts, the bomber, whether carrying the hydrogen bomb or some other explosive, will be pilotless.

"We'll see a lot of uninhabited airplanes around here nine and a half years from now, but I think the preponderance (of pilotless planes) will begin to be noticed in ten years: They will be intercontinental. The principle that will make them go from here to San Francisco can make them go farther."

Mr. Naish agrees with Lockheed that "long before 50 years, piloted aircraft on a military basis will probably be out of use, as a weapon." And Mr. Davis says flatly: "Both ourselves and Russia will find it possible to place a warhead any place we want to in the other fellow's back yard."

Mr. Naish feels, as Mr. Gross does, that fear of these reprisals alone will not bring the end of war. He thinks that the decision to end wars will be a matter of economics; we just won't be able to pay the costs.

"Even the most warlike person will desert his amorality when he finds out his pocketbook can't stand it. I think we're getting to (such) an era now and we say that advisedly because we're in the (guided missiles) business. We know what these things cost. We're starting to talk about things that are just beyond the comprehension of money as we know it today."

Mr. Kindelberger makes no prediction about the end of war, but foresees the elimination of pilots in combat aircraft. "Tomorrow's military aircraft will be pilotless because tomorrow's flying machines will fly too high, travel too fast, and maneuver too sharply for human endurance or effectiveness.

"Already today's pilot with his inability to survive wide ranges of pressures and temperatures is a serious design problem. The need to cool him when he is hot, heat him when he is cold, and provide him with a breathable atmosphere and livable pressure at all altitudes is adding up to a large amount of space and complex machinery.

"And already his limitations in performing large numbers of operations simultaneously, precisely and rapidly have required that his actions be supplemented by electronically controlled, automatically energized systems to solve such formerly simple problems as adjusting fuel flows and mixtures, sighting targets, aiming guns, rockets, or bombs, and



"That's not what I meant when I said she sticks to her knitting"

directing the plane to and from combat areas."

Mr. Raymond believes there will still be room for men in military aircraft. He thinks there is a tendency to try to make machines do too many jobs—and doesn't think that the economics of war are going to end war: "That (the economic factor) has never yet stopped anybody—unless one of the adversaries went bankrupt." And on the subject of pilotless planes: "This trend will surely continue, but men will still be retained where the exercise of judgment and discretion are required. You can't engineer much judgment into a missile. My own feeling is that a lot of thought about unmanned vehicles comes from people who are challenged by the idea that devices can do what man has been able to do."

Edgar Schmued and his engineering chief, William Ballhaus, disagree with the theory that the guided missile with atomic or hydrogen warhead is going to be such a terrible weapon that men will want to end wars. They cited the story of the safecracker to make the point that for every offensive weapon the human mind can contrive a defense.

The safemaker can design a safe, the story goes, which is uncrackable. But the safecracker gets hold of the patent and figures ways to crack it.

All of the authorities mention the possibilities that our cities may be dispersed, the population spread out, as an air defense. This dispersal, if it goes into effect, will probably bring into existence a new kind of airline; the short-radius line, the aerial bus, probably some kind of helicopter or convertiplane.

This idealism about the power of aviation is of course counterbalanced by the expected rocky conservatism. Asked what he estimates will be the principal problems of military and civilian aviation 50 years from now, Mr. Raymond replies:

"The same as they are now: getting the most in results per dollar of expenditure. I would hope and anticipate that the proportion of effort going into civil aviation would be considerably more than it is now. At least, this is a goal toward which we must all strive."

William Littlewood, American Airlines vice president, engineering, puts it in slightly different language:

"The role of aviation during the next 50 years, in a world under capable and successful leadership devoted to the cause of peace, will be to provide more and more transport of men and goods, at substantially increased speeds but at no greater costs; with more dependability, convenience and comfort, and with even greater safety."

END

Most people know where to find the tallest building in the world...but

do they know where your authorized dealers can be found?

National Trade Mark Service in the 'yellow pages' of telephone directories is the perfect link between your advertising and local outlets. Your trade-mark or brand name is displayed and the names, addresses and telephone numbers of your dealers are listed under it.

Do you want to be sure that prospects can find where to buy your products... that your dealers get more business from your advertising? National Trade Mark Service in the 'yellow pages' is the answer.



AMERICA'S
BUYING GUIDE
FOR OVER 60 YEARS

You can get further information by calling the Classified Directory Representative at your telephone business office or looking in Standard Rate and Data (Consumer Edition)



Cold bread is Hot news

A young industry adds bakery products to its frozen-food line and moves one step closer to the billion-dollar business mark

By **PAUL W. KEARNEY**



FOLK sitting at America's dinner tables are beginning to experience a new revolution in the field of quick-frozen foods. Now bread, rolls, pies, cakes and other bakery products are stored and sold under refrigeration.

Quick-frozen foods first appeared in grocery stores in the early 1930's. After a slow start these new products hit the jackpot in the 1940's. In the past few years frozen fruit concentrates added still further to the volume. Today the American frozen

food industry is close to a \$1,000,000,000 business, at retail prices, and still growing mightily.

But until this year food processors didn't get around to doing much about quick-freezing bakery products, even though sales of bakery goods run to more than \$3,000,000,000 a year in the United States.

Now that a start has been made, nearly 2,000 grocery stores from upper New York State to Florida are now selling one East Coast baker's

quick-frozen breads and rolls. His shipments also are going to places as far away as Puerto Rico, Italy, England, Germany and the Canal Zone. More than 1,000,000 of his frozen loaves were sold in the United States in the first few months of 1953 and sales are continuing to mount.

At a meeting last March in Chicago, the American Society of Bakery Engineers devoted much attention to the subject of quick-freezing. One report told how a panel of consumers was asked to express by secret ballot its preference for either fresh or quick-frozen bakery products. In nearly every instance the frozen products won in a walk, usually two or three to one. Baked products, quick-frozen shortly after they come out of the oven, lock in the fresh flavor and retain it for many months.

Supermarkets in Detroit and St. Louis have reported highly favorable acceptance by consumers of a wide variety of quick-frozen bakery items. Stores find it difficult to keep the display case filled; because the demand is so brisk they have to sell the products right out of the freezer.

Dr. William R. Johnston, vice president in charge of research for Standard Brands, Inc., last summer made a speech to the American Home Economics Association and foretold a glowing future for frozen bread, cake and other baked goods. But the most dramatic testimony comes from a baker who has pioneered in the production and widespread distribution of quick-frozen bread.

Two unusual men are involved in this story. Dean Arnold, a successful baker in his early 40's, at Port Chester, N. Y., bakes products of such unusually high quality that people are willing to pay several pennies extra per loaf. One night a few years ago he was reading "Discovery," a book written by Rear Adm. Richard E. Byrd. Certain passages set Mr. Arnold's imagination on fire.

Admiral Byrd had raised the flag of the United States over Little America in January, 1929. After a long, successful expedition, including a flight over the South Pole, Admiral Byrd suddenly had to pull up stakes to return home. The cold was so biting that the men decided to get out while they could; they didn't take time even to finish a meal they were eating. On the dinner table the admiral and his companions left a half loaf of freshly baked bread.

That unfinished repast was forgotten until Admiral Byrd returned to the South Pole four years later. Members of his new expedition chopped through thick ice covering the hut and discovered the remainder

of the meal, just as they had left it on the table. After they rebuilt the fires, Admiral Byrd, long a student of nutrition, decided to experiment. He tasted the four-year-old frozen bread when it thawed and found it surprisingly good.

When Mr. Arnold read about it nearly 20 years later he was encouraged to speed up his research experiments and studies in production of quick-frozen bakery products. Last winter he and his wife Betty, co-founder of the business, felt they were ready to produce and sell quick-frozen breads and rolls.

As the new venture got off to a favorable start, Mr. Arnold decided he would like to meet Admiral Byrd to thank him for sparking the new business venture. The two men instantly took a liking to each other, and decided to team up. The admiral became a vice president of Arnold Bakery, Inc., one of America's largest independent baking concerns, and was put in charge of its new Frozen Products Division.

Typical of both men, they want to turn over to anyone in the baking industry the technical knowledge they have acquired in overcoming the many problems. They get letters from all over the world. Frequently there are offers to pay fees or to make a licensing arrangement, but the Arnold people merely send out mimeographed instructions based on their extensive technical knowledge. Anything which benefits the industry as a whole they feel will prove helpful to themselves and to the public.

Admiral Byrd already has shipped 10,000 loaves of frozen bread to Western Germany for Iron Curtain refugees. He is planning a large experiment in relief from malnutrition under scientific guidance in India. Export shipments to various foreign shores have developed because American servicemen demand American bread.

Since 1940 Dean and Betty Arnold have been developing a bread which is virtually a complete food combination in itself. While some bakers believe bread should serve merely as a carrier for butter, jam or other spreads, the Arnolds have been striving to get a superlative flavor, and quick-freezing has aided them. Arnold bread is quick-frozen less than two hours after it has left the ovens. It has a fresher flavor 1,000 miles away from the bakery than an unfrozen loaf purchased a mile away. Arnold bread held for six months in a freezer tastes as buttery as when it was freshly baked.

The Arnolds sell nearly 1,000,000 loaves of highest quality fresh bread a week, at a premium price of about



...another outstanding achievement of Borg-Warner!

Now it's goodbye—and *good riddance*—to bothersome, wasteful "skin" that formed on surfaces of partially used cans of paint! Thanks to MARBON 9200 soluble high styrene paint chips and paint resins, paint manufacturers are keeping their product permanently "skinned"—every drop instantly usable, ready to spread. And this is only *one* of the ways MARBON 9200 is making paint manufacturers and paint customers happy!

Paints formulated with MARBON 9200 have no lingering odor... have a tougher finish that resists acids, alkalies, salts and industrial fumes... retain their original color and gloss through many more scrubblings... are easily applied over a wider variety of surfaces by brush, roller, spray, flow coat, tumbling and dipping. MARBON 9200—because it comes in four viscosity grades—allows producers of paint to expand their lines using the same basic ingredients and equipment. And these manufacturers make substantial processing savings in the bargain!

MARBON 9200 is just another example of how Borg-Warner research and development is helping industry improve its products and its profits!

B-W Engineering makes it work
B-W Production makes it available



Almost every American benefits daily from the 185 products made by

BORG-WARNER

THESE UNITS FORM BORG-WARNER, Executive Offices, Chicago: ATKINS SAW • BORG & BECK BORG-WARNER INTERNATIONAL • BORG-WARNER SERVICE PARTS • CALUMET STEEL • CLEVELAND COMMUTATOR • DETROIT GEAR • FRANKLIN STEEL • INGERSOLL PRODUCTS • INGERSOLL STEEL LONG MANUFACTURING • LONG MANUFACTURING CO., LTD. • MARBON • MARVEL-SCHIEBLER PRODUCTS • MECHANICS UNIVERSAL JOINT • MORSE CHAIN • MORSE CHAIN CO., LTD. • NORGE NORGE HEAT • PESCO PRODUCTS • REFLECTAL • ROCKFORD CLUTCH • SPRING DIVISION WARNER AUTOMOTIVE PARTS • WARNER GEAR • WARNER GEAR CO., LTD. • WOOSTER DIVISION

NOW...

Photo-exact copies on ordinary paper



The Kodak Verifax Printer is sensationally different . . . lets you make 3 copies of a letter in 1 minute. And you make your copies on ordinary paper instead of on specially treated papers . . . using only one sheet of sensitized Verifax Matrix Paper.

As a result, you can copy letters, charts, records *faster, more economically*—3 copies of a letter cost less than 4 cents apiece.

The only equipment needed is the typewriter-size Verifax Printer shown above. *It's designed for every office . . .* can be placed where the paper work is heaviest . . . operated by *anyone* under present lighting. And *it's priced for every office—only \$240 . . .* quickly pays for itself by eliminating costly retyping, proofreading . . . and enabling you to dispatch legible black-on-white copies immediately.

Verifax copying saves wherever there's paper work

No other process is as handy as Verifax copying. It will pay you to mail this coupon today for free booklet giving all the facts.

Eastman Kodak Company ⁵⁶
Industrial Photographic Div.
Rochester 4, N. Y.

Gentlemen: Please send free Verifax booklet and names of near-by dealers.

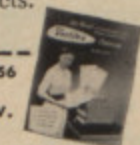
Name _____

Company _____

Address _____

City _____ State _____

Price quoted is subject to change without notice.



Kodak

25 cents a loaf. To them quick-frozen bread means more than just fresh-tasting bread. It means a great saving of vital materials. Today at least five per cent of the breadstuffs sold by bakers are brought back unsold and stale. This means a vast waste of farm products. While some stale bread is converted into poultry stuffing or animal feeds, much of it is burned in incinerators because of the cost of reconvertng it.

Mr. Arnold has a reputation for interest in work relationships as well as for his new ideas in the bakery field. Son of a once well-to-do family that went broke in the 1929 crash, he got a job with National Biscuit Company, where he gradually progressed to the post of baking superintendent of the Portland, Me., branch. There he developed an acute flour allergy, which forced him to give up his job.

IN HIS ten years of baking, however, Mr. Arnold had developed a desire to produce the finest loaf of bread ever put on the market.

He rented an abandoned bakeshop in Stamford, Conn., which met one of his most rigid requirements: It had a brick oven which gives the quiet slow heat he feels is essential for perfect bread. Hiring a professional baker so that he himself wouldn't have to inhale flour dust, Mr. Arnold tried out recipe after recipe containing the finest unbleached wheat flour and top grades of milk, creamery butter, honey and—believe it or not—whole eggs. This last is something that even Grandma hardly thought to put into her homemade loaves, and which almost no other bread baker uses today so far as Dean Arnold knows. Eggs enhance the flavor and step up the nutritional value, for the vital values of grain proteins are not completely assimilated except in the presence of animal protein—supplied here by the egg.

There was some trial and error before his volunteer tasters decided on the present formula. Today Mr. Arnold has some 3,000 volunteer tasters in the form of housewives' panels who keep tabs on quality.

The whole family augmented the talents of the hired baker. Betty Arnold among countless other tasks wrapped the loaves as they came out of the oven, sealing the waxed paper with her electric iron. Soon there were as many as 1,500 loaves a night. After a few hours' sleep they would begin to clean up for the next day's run, while Dean and his brother started out to peddle at sunrise.

The sales talk was usually brief and to the point. Unwrapping a loaf, they'd stick it under the prospective dealer's nose and say, "Get a whiff of

this." That demonstration made sales. One of these earliest buyers was a letter carrier who took it upon himself to plug the product at every house where he left mail. Local grocery clerks, impressed with the reception the new bread was getting, came in and applied for delivery routes. Several of these routes have expanded to become wholesale distributorships, one of which recently changed hands for more than \$150,000—and there are others of comparable value.

But this didn't happen overnight. More than once in the early days the Arnolds had to borrow a 60 pound tub of butter to tide them over a lean spell. In their \$3-a-week room they sometimes lagged behind as much as 18 weeks in their rent. When they couldn't meet the Friday payroll, Dean and his brother would load up some fresh loaves for a second call on grocers. "We thought you might like to take some of tomorrow's order tonight," they would say hopefully. Soon this Friday night call came to be known in the trade as "the payroll shift."

The whole neighborhood became intrigued with the new venture. Passers-by at night, pausing in the doorway and noticing the fatigued workers, would lend a hand.

WHEN the growing demand for bread began to overwhelm the resources of the first little shop, Mr. Arnold found an abandoned plant in Port Chester which boasted three brick ovens. The one important hurdle, however, was that it would cost around \$3,500 to recondition the plant. Mr. Arnold had no credit, no collateral, no endorsers. So one morning he and his wife went to a bank in Stamford, where they were totally unknown, and left a loaf of fresh bread on every desk. The next day they went back and had a talk with the president. And they walked out with \$3,500.

The Arnolds kept on walking after they left the bank—always forward—pioneering in such innovations as thinner slices, double wrappers, and now quick-freezing.

"We aren't prophets," Dean Arnold says, "but we have great faith in the future of quick-freezing in the bakery field. It means better flavor. It holds out a promise of better working hours. It is reducing waste of farm products. Reserve stocks of highly nutritious breadstuffs can be held for almost indefinite periods and rushed out for disaster and famine relief. The way that housewives are buying our frozen bread makes us think this is indeed the beginning of a new revolution for the dinner table."

END

Letters to the Editor

(Continued from page 45)

or the egg?" Imports have caused cut-backs in domestic production which create a "deficit" in domestic production which makes imports necessary. Without the imports we would produce the required oil and imports would not be needed because there would be no "deficit."

I have intentionally avoided comments on the author's appraisal of the international situation. His statement that loss of Middle Eastern oil through unintelligent handling of the political and diplomatic problems would "likely prove a particularly painful one" may very well be correct. Nor have I commented on the fundamental proposition that oil imports in reasonable amounts may be sound national policy for the United States. I believe that most of the oil industry thinks that to be true—even those independents who, the author says, "are prone to work themselves into an apoplectic lather"—when imports are mentioned.

One argument that is worse than useless, that is patently and demonstrably false, is the "deficit" or "running out of oil" argument. The history of the industry and the present condition of the industry belie that statement.

STARK FOX
Los Angeles, Calif.

How Russia will catch us

The tone of the article, "Russia's Gaining On Us," is definitely alarming and, in our opinion, unnecessarily so.

The article is headlined by the statement that we are producing 115,700,000 tons of steel—an increase since the war of 73 per cent. Soviet output is 41,400,000—an increase in the same period of 189 per cent.

Simple arithmetic discloses that our production increase of 73 per cent indicates a tonnage gain of 48,700,000 tons, whereas the Soviet increase of 189 per cent indicates a tonnage increase of 27,075,000 tons.

We hope Russia keeps on gaining at the same rate because she then will be hopelessly outclassed.

CHARLES E. HEINRICH
Vice president
Virginia-Carolina Chemical
Corporation
Richmond, Va.

Note: The article was intended as a discussion of trends and possible results over a long period. If we both continue at the same rate in the next similar period (roughly eight years) we will increase production some 84,610,000 tons. Russia will increase production 78,246,000 tons. If both continue at the same rate for another eight years, total production then will be U. S. 346,000,000, Russia, 345,000,000.

—Editor

Tax change suggestion

I note the article entitled, "They Are Making a Better Tax Law."

I think we can stand a better law;



IT'S EASY TO SEE
WHY YOUR
BEST BUY IS A
BURROUGHS



Do it yourself! See how automatic ciphers, direct subtraction, and the ability to enter entire amounts at one time give you speed to spare.

Try it yourself! See how the right-slope keyboard, simplified controls and finger-fit keys combine to give you unsurpassed operating ease.

Compare! Check Burroughs features and price with your local Burroughs dealer or branch office now. You'll see why your best buy is a Burroughs. Burroughs Corporation, Detroit 32, Michigan.

Best buy for SPEED!

Best buy for EASE!

Best buy for VALUE!

WHEREVER THERE'S BUSINESS THERE'S





OUTSTANDING VEHICLES for Lucky Girls and Boys give the joy of hours of healthful, happy driving and playing — Fun and Health plus real educational value. Any one of these true-to-life toys offers really exciting enjoyment for children. Each vehicle resembles and functions like a standard model, on a miniature scale. They are ruggedly constructed, made to withstand plenty of hard wear.

COMBAT TANK
(PEDAL OPERATED)



Has a repeater action turret gun, which fires harmless ping-pong balls. Full-track crawler treads, with cleats. Fiber-glass reinforced plastic body. Color U. S. Army olive drab.

Caterpillar
REG. U. S. PAT. OFF.
CRAWLER TRACTOR
(PEDAL OPERATED)



A miniature of their diesel model D-4 Tractor, authorized by The Caterpillar Tractor Co. Geared down for power to climb hills and push loads.

Powercar
JUNIOR
(ELECTRIC MOTOR, BATTERY POWER)



For children from about 4½ years to 5 feet tall. Has electric lights, electric horn and ample power to pull other children's vehicles. Reverse shift, speed limited to 5 M.P.H.

(ELECTRIC MOTOR, BATTERY POWER)

Powercar
Special



Junior Sports Car — for children from 5 years of age to 6 feet tall. Has fiber-glass reinforced plastic body, built-in battery charger, electric horn, sealed beam headlights, tail lights and many other scale model features. Reverse Shift. Speed limited to 5 M.P.H.

SPECIALISTS IN OUTSTANDING VEHICLES FOR CHILDREN See these vehicles at your favorite department stores. For more information concerning any of these vehicles, write to

MYSTIC RIVER SALES CO.
Dept. A-12 Mystic, Connecticut

the public is entitled to have the income tax office commit themselves as to the status of a sale before the transaction is entered into. As it is now, four or five years after a deal is closed a tax man calls on the taxpayer and in many instances insists that the profit from the deal be included in current income.

The average man can't afford to fight the case, so pays up.

C. H. REEVES
Pomona, Calif.

Figures on markup

In your article "Store of Tomorrow" you state that markup 30 years ago was 40 per cent.

I have been in business here 44 years and for your information it has never been over 20 per cent over-all. Like now some 25, some only 10 or less, but averaging around 20 per cent. Goods over the years in grocery business priced wholesale at 90 cents a dozen sold for 10 cents. \$1.35 a dozen to \$1.40 sold for 15 cents. \$2.25 or up to \$2.40 sold for 25 cents.

E. J. KLINE
Kent, Ohio

Note: Mr. Morehead's article dealt with markup in department stores, not food stores.—Editor

Automation fascination

Albert Morehead ("Let's Look at the Store of Tomorrow") is fascinated by automation, not unknown here in Detroit. Does he presuppose that all Americans enjoy the lineup at the checkout counter? Did he ever buy pre-wrapped steak, with the fat and bone concealed?

Selling is not a lost art, in or out of the store. Today's fledglings will respond to good training, pleasant environment and adequate compensation in retail selling—where the problem is

recognized and correct solutions applied. For my part, a pleasant, capable salesperson willing to give my hard-earned dollar the added enjoyment and satisfaction of unhurried selection is still the best hope of merchandising.

CECIL CHATTERTON
Copy Papers
Sales & Service Agency
Detroit, Mich.

The photograph of an automatic coffee machine in "A Banker Runs the White House" is of interest to us. I would appreciate your sending the make and distributor's name as we intend to install one in our plant.

WERNER W. LASCH
General Manager
Belvidere Hosiery Mills, Inc.
Belvidere, N. J.

Where "ham" came from

The article, "All Ham and a World Wide," states that nobody seems to know exactly how the word "ham" originated.

Ask any telegrapher who is 70 or more and he will tell you this was a common word to designate a beginner in learning the Morse code for longer than he can remember.

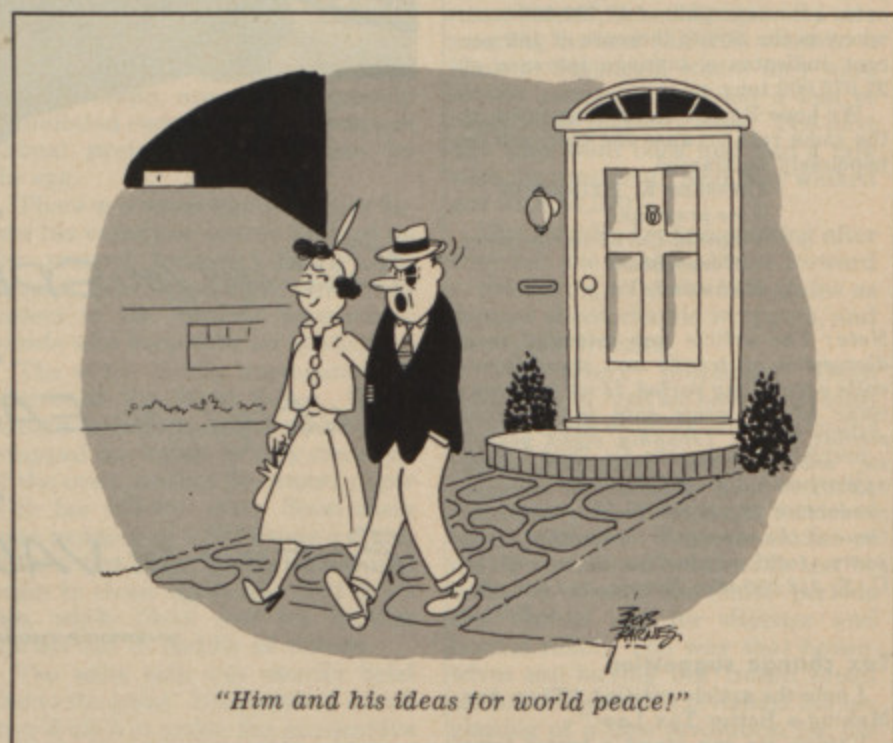
One day while I was practicing the code, the chief operator remarked to the office manager, "What, another ham?"

Later the manager explained that several years back he was looking over a young applicant at the local telegraph office and noticed that he had unusually large hands.

He said to the young man, "You can't be a telegrapher, your hand is too big and heavy, it looks like a ham."

The young man replied, "Then I will be ham operator."

MAURICE MURRAY
Wilkes-Barre, Pa.





THE GIFT CERTIFICATE— GIFT WRAPPED

MANY new twists have transformed the once colorless gift certificate—solution to the problem of giving to the person “who has everything”—into something more than a mere slip of paper. Today, that little printed form has become a tremendous spur to sales.

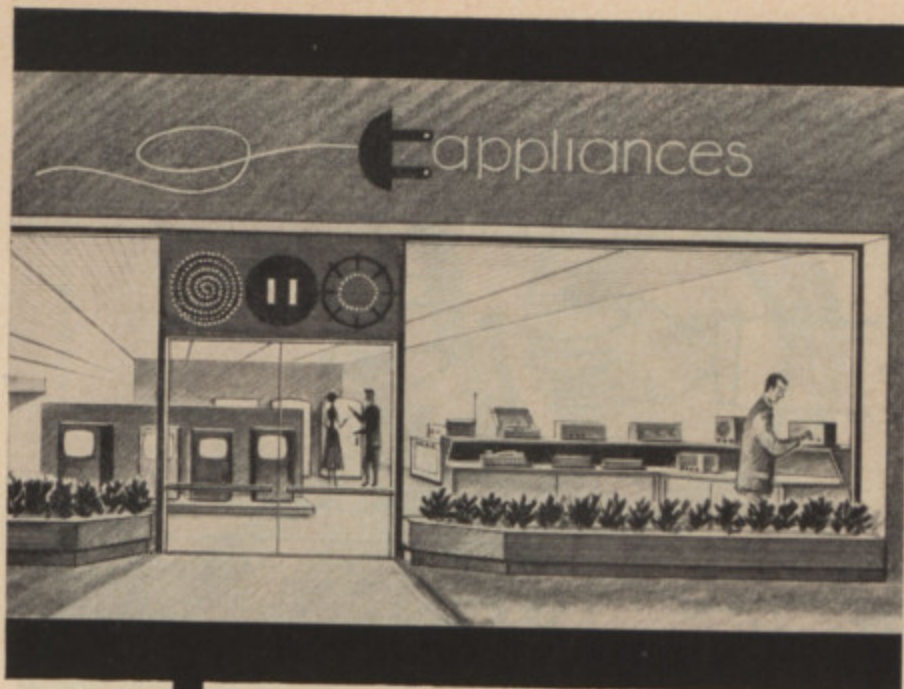
For example, one big department store delivers merchandise gift certificates with a messenger on horseback, dressed in the costume of a pony express rider. Another company uses a stagecoach to make deliveries in flamboyant style.

Some stores use flowers to go with the certificate. For instance, for a wedding present, the paper is rolled up with a spray of lilies of the valley. For a woman's birthday, another flower is used, like a rose, or a gardenia. One New York store presents orchids with its gift slips.

Another company has special wrappings on the gift blanks to fit specific occasions. For a baby's present, the certificate is encased in a souvenir pair of babies' booties. For silver or gold wedding anniversaries, special trinkets decorate the package.

One hat manufacturer rolls up gift certificates scroll-fashion in a miniature man's top hat, suitable for an ash tray or cigaret container. Another hat firm hands out tiny hats complete with a miniature hatbox to match. A shoe manufacturer gives tiny replicas of his product as souvenirs. Several shoe companies present shoe ash trays.

In fact, the gift certificate business has become so popular with customers that many shoppers actually collect them as souvenirs. One New York store has a woman customer who specializes in the Tom & Jerry mugs in which the firm puts its gift certificates. She has 29 of them now, and every year comes back for more. She gives the certificate but keeps the mug.—ARTHUR R. PASTORE, JR.



sales go up
when **Masonite Presdwood**
goes into...
an appliance store!

Television and radio...washers and dryers...air coolers and dehumidifiers...how wonderful are the modern conveniences produced by American industry!

Distribution is going modern, too. Alert merchants display these modern marvels in sparkling, handsome settings—such as those created with Masonite Presdwood.

This durable, all-wood hardboard is so easy to work with—does so many different jobs *better!* Has no knots or grain to rise and disturb the many beautiful finishes that can be applied. Will never split, splinter or crack. Can even be bent to graceful, permanent curves.

Ask your display man, your building contractor and building materials dealer about Masonite Presdwood®. They'll tell you more about what this versatile panel material can do for you.

Looking for ideas?

Send for a free folder filled with up-to-date ideas, sketches that'll help you modernize with Masonite Presdwood.



MASONITE® CORPORATION

Dept. NB-12, Box 777, Chicago 90, Illinois

"Masonite" signifies that Masonite Corporation is the source of the product

Please send me the idea folder as checked at right.

Name.....

Address.....

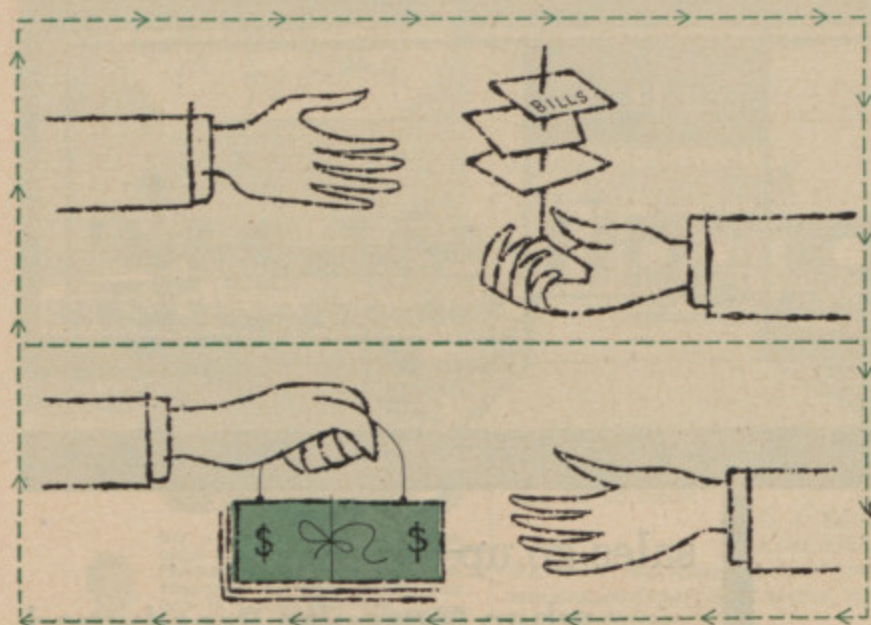
Town.....Zone.....

County.....State.....

Better Hardboards for Better Modernizing

- ☐ Household Appliance Store
- ☐ Meat and Fish Market
- ☐ Furniture Store
- ☐ Hardware Store
- ☐ Shoe Store
- ☐ Bakery Shop
- ☐ Grocery and Meat Store
- ☐ Drug Store
- ☐ Restaurant
- ☐ Auto Dealer
- ☐ Women's Ready-to-Wear

QUICK DOLLARS THAW



FROZEN ASSETS

*You can get the cash you need now
for bills your creditors will pay later*

By **STANLEY FRANK**

AN OLD, dignified company in Baltimore goes through a strange performance every month that seems as improbable as a lonesome sailor spurning advances by Marilyn Monroe. The Commercial Credit Company asks hundreds of thousands of business firms whether they are strapped for cash and earnestly invites them to drop around to one of its commercial financing offices and pick up the money they need.

There are no strings, jokers or gimmicks attached to the offer. The borrower's dear wife and children are not incarcerated in a dungeon until the money is repaid. He does not have to put up an arm, leg or a piece of his business as collateral. Under certain conditions, a short-term loan may be cheaper than one obtained from banks—but there is a distinct difference in the way the money is used.

The borrower has merely to show Commercial Credit his books, then

assign to it some of his accounts receivable or inventory, and he gets the money in three to five days. That's all there is to it. Although it is a predictable cinch that fully half the 125,000 firms on the mailing list will need cash in the course of the year to expand or meet their obligations, Commercial Credit gets only 10,000 inquiries a year from potential clients.

"You'd think we'd need armed guards on the doors to keep people away," says Frank M. Nicodemus, vice president of the commercial financing division. "Our mailing list is the best money can buy and our advertising is in the finest media. Yet a majority of businessmen still are unaware of the profits they are missing by failing to use our facilities, and similar ones, for expansion programs.

"One of the main reasons for business failures in the United States is not bad management but the inability

to get money while a firm is suffering from growing pains. That need is greater than ever today in view of the tax situation. A successful, efficient firm can get into all sorts of temporary jams simply because it is doing well. Operating capital may be tied up in accounts receivable or inventory, making it difficult to meet a payroll, buy needed machinery, or pay bills.

"A finance company may regard the firm's troubles as symptomatic of vigorous, progressive management. If we believe its frozen assets are sound, we will advance up to 85 per cent of its accounts receivable and two thirds the book value of an up-to-date inventory. Too many people forget that this country's economic structure is based on credit. That's what has made us the world's leading industrial nation."

There is a lot in what Mr. Nicodemus says. The growth of the automobile industry, which effected an economic and social revolution in America, is a conspicuous example of the benefits derived from "commercial financing" as distinguished from "bank" financing.

Without it, the auto industry would not have mushroomed so prodigiously around the time of the first World War. At that time auto manufacturers had so much capital sunk in production that they could not make deliveries to dealers on credit. Dealers, in turn, could not tie up their funds in inventories and relatively few purchasers then, as now, could afford to pay cash for cars. The bottleneck was broken, with a resultant phenomenal increase in production, only when finance companies, a recent arrival on the business scene, advanced money to dealers and enabled individuals to buy cars on instalment payments.

The same process has been responsible for the development of the tremendous business in household appliances—refrigerators, washing machines, radio and television sets, oil burners and other refinements that feature our standard of living. Again, private finance companies stimulated the flow of goods from manufacturers to distributors to ultimate consumers by providing the cash and the credit that oils the wheels of industry.

Finance companies generally function in two separate, although related, spheres. One role is familiar to every dewy-eyed bride, who knows credit can be obtained for instalment purchases and family emergencies. The volume of consumer credit is enormous, accounting for nearly ten per cent of the country's annual total disposable personal income. Many executives who have been in business

for years do not know, however, that an elastic source of credit is available to business concerns and that it can be tapped as easily as arranging to buy a car on time payments.

This method is to hypothecate accounts receivable, or pledge outstanding bills with a finance company as security for a cash advance. This is an entirely different type of service from that traditionally offered by banks on straight commercial loans. Finance companies are particularly helpful to young firms. As for the banks, federal and state authorities rigorously supervise their transactions and restrict loans made on unsecured bills. Finance companies work with stockholders' money and banks with depositors' money—the difference between risk capital and demand capital.

It is significant that many firms which use finance companies to get over the rough spots eventually deal with banks as they acquire stability and greater capital assets which then meet what are often arbitrary "yardsticks." Bank rates for comparable use of money are cheaper than finance companies' interest charges.

"Hocking" receivables—a slang synonym for hypothecation—must be mutually beneficial to borrower and lender. In 1952, the Commercial Credit Company and its subsidiaries advanced \$543,000,000 under that arrangement, and some of the loans were large in any league. At the end of the year the company had advances of more than \$12,000,000 to one client; \$7,400,000 to another, and \$3,500,000 to a third, all important factors in their respective industries.

The actual risk involved is negligible. American businessmen have established an unparalleled record for meeting their obligations. The normal, over-all loss on receivables is one half of one per cent.

"Our few bum guesses have been made on customers' integrity rather than the debts owed to them," Mr. Nicodemus confides. "On the infrequent occasions we've been taken for a ride, books were juggled fraudulently to show accounts or inventories that didn't exist. Careful screening of applications for loans have cut such losses down to the vanishing point. Most of our loans are on accounts receivable and the basic theory must be sound if we can advance more than \$500,000,000 a year and stay in business.

"That's true of competitors, too. If I had to make a fast estimate—and don't forget it's strictly an estimate—I'd say American industry hypothecates about \$25,000,000,000 worth of accounts annually."

In these times, when the cash

NO TAX PROBLEM HERE.... they're burying it!



This cast iron water main, uncovered for inspection, is in its 104th year of service in Buffalo, N. Y.—one of more than 45 cities with century-old water or gas mains in service.

When you see cast iron pipe put in the ground you can say to yourself: "There's *one* expense we taxpayers won't have to meet again."

Cast iron pipe serves for centuries. As of now, more than 45 American cities use cast iron gas or water mains installed over a hundred years ago! Today, *modernized* cast iron pipe, *centrifugally cast* for still greater strength, toughness, durability, assures even longer life. Your great-grandchildren will be served by the *modernized* cast iron pipe installed today.

On the record, cast iron pipe, America's No. 1 Tax Saver, has saved and is saving taxpayers millions. In the years ahead, *modernized* cast iron pipe will save millions more.

Cast Iron Pipe Research Association, Thos. F. Wolfe, Managing Director, 122 So. Michigan Ave., Chicago 3.

CAST  IRON

CAST IRON PIPE

America's No.1 Tax Saver

©1953, Cast Iron Pipe Research Association

MORE WASH FACILITIES • IN LESS SPACE •



Men and women in hundreds of mills and factories like Bradleys.

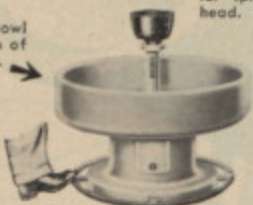


In schools, colleges and institutions, too, the sanitary features make Bradleys first choice.

Large self-flushing bowl prevents collection of contaminating water.

Foot-control ring turns water "on" and "off."

Soap dispenser and circular spray-head.



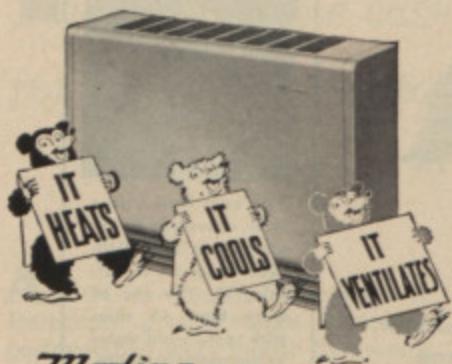
Up to 10 persons can wash at a Bradley Wash-fountain simultaneously—taking less space than 10 basins. No more piping connections are required than for one basin—one for hot water, one for cold, and the drain. Hands touch nothing but the clean spray of running water. Save metal, cut piping connections 80% and water consumption 75%. Pre-cast stone and enameled iron models.

Send for Booklet, "Washroom Layouts." BRADLEY WASHFOUNTAIN CO., 2205 W. Michigan Street, Milwaukee 1, Wisconsin.

BRADLEY
Washfountains



Distributed through Plumbing Wholesalers



Modine CABINET UNIT for year 'round comfort

MODINE Cabinet Units are ideal for new or remodelled stores, offices, motels, hotels, other public buildings. They provide fast, positive, quiet distribution of heated or cooled air where the expense of unit ventilators or air conditioners is not warranted. Inexpensive accessories permit introduction, filtering, heating and distribution of fresh outside air. Write today or see the Modine representative listed in your phone book.

Tear out coupon — mail today!

MODINE MFG. CO.
1562 DeKoven Ave., Racine, Wis.
Send me free copy of Bulletin 552.

Name.....
Firm.....
Address.....
City..... Zn..... State.....



C-1204

working capital position of businessmen is at a ten-year low due to high taxes and operating costs, profits can be as deceptive as a rookie's spring batting average.

The owner of a small business easily may show a valid gain on his books yet be in a desperate situation for ready money. His net profit can be in the form of bills owed to him, in inventory or new equipment. Let's assume his assets are tied up in bills outstanding. He knows they will be paid in time; the average turnover of receivables is 33 days. His debtors also are on the spot, and you can't alienate customers by putting the squeeze on them.

In the meantime, though, the creditor needs cash himself to maintain his credit rating, get quick deliveries on materials, avoid penalties for late payment of taxes, increase his volume of sales—or to ride out any of a hundred recurring crises that beset the small entrepreneur. What to do? In three weeks his customers may pay their bills and he will be in good shape. But right now he has to dig up fresh money or perhaps be forced to the wall. There are five possibilities he can explore. He can:

1. Apply to a bank for a loan. But he is not too liquid and banks have heavy responsibilities to depositors which compel them to be cautious. Further, not all banks are geared for the special bookkeeping involved in handling receivables — although those that are advance more money on receivables than all the finance companies together.

2. Sell his accounts outright to a factor, an old, accepted procedure in the textile, furniture and shoe industries. The drawback is that customers must be notified that their bills have been assigned to a third party. In many fields customers and suppliers interpret this as a sign of weakness.

3. Sell stock in the firm, which dilutes control and ownership of the present stockholders.

4. Take in a partner, again sharing control and future profits with someone who is in a position to drive a hard bargain.

5. Go to a finance company and borrow money on his receivables.

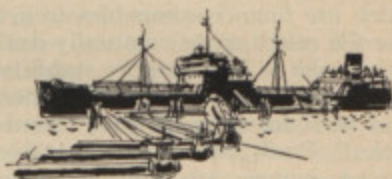
Once a firm hypothecates accounts with a finance company, advances to carry new shipments can be obtained automatically merely by putting up another batch of receivables. An important aspect of the arrangement, especially for a new, struggling firm, is that the purchasers do not know their accounts have been assigned to the finance company. Customers pay their bills directly to the firm, which then sends the remittances to the

finance company to repay its advances. As a consequence, there is no gossip in the trade that so-and-so is in trouble.

What interest rates do finance companies charge?

A unique feature of hypothecation is that a client pays interest to a finance company on a fluctuating day-to-day basis, only as he actually uses the money.

Let's take an example. A wholesaler has \$100,000 outstanding in receivables on Aug. 1. On past experience, the bills should be paid by Aug. 20. But he needs cash quickly to meet one of his own bills. By posting the receivables with a finance company he can get \$85,000. The company withholds 15 per cent of the receivables' face value as a reserve against discounts, returns, etc.,



but the wholesaler has a 15 per cent cash equity in every assigned bill.

Here's how it works: The finance company credits remittances, as soon as it receives them, to the wholesaler's loan, thereby reducing the principal. Assume the wholesaler turns over \$10,000 on Aug. 3; \$50,000 on Aug. 10; \$20,000 on Aug. 15 and the remaining \$20,000 on Aug. 20. With a rate equivalent to nine per cent a year, the finance company would charge one fortieth of one per cent interest daily on the cash borrowed—but don't forget the debt is shrinking constantly.

The wholesaler's final statement from the finance company shows this:

Date	Cash Borrowed	Equity Remitted	Face Value Receivables
1	\$85,000		\$100,000
3	76,500	\$1,500	90,000
10	34,000	7,500	40,000
15	17,000	3,000	20,000
20	—	3,000	—
		\$15,000	

The wholesaler received his \$15,000 equity in full and paid interest on a steadily diminishing principal. In this example, his debt averaged \$48,025 a day, and the total cost was \$240.13.

Suppose this same wholesaler had obtained a bank loan of \$85,000 for a term even as short as 30 days. He would probably have had to borrow around \$106,000 since banks usually require that borrowers keep on deposit 20 per cent of the amount of their loan. In order to have the bank loan cost the same as the \$240.13

paid to the finance company, the wholesaler would have had to borrow at an interest rate of less than three and a half per cent per annum.

He could, of course, have made many times more than the modest \$240.13 cost of the loan with \$85,000 in cash at his disposal. He could earn discounts on accounts payable, latch onto an opportunity to increase his volume, buy efficient machinery, get a desirable account by granting longer terms or buy out a competitor willing to unload at a sacrifice. He could have obtained preferences in deliveries or service by paying a bill promptly. Nobody knows how much money small businessmen lose every year by failing to take advantage of cash discounts.

Since a finance company has an active stake in the payment of bills, it can advise a client how to jack up his collection policies. If a firm borrows on inventory, the finance company can perform a valuable service by rigid warehouse control of obsolete and excess stock. Not too long ago, Commercial Credit put an aircraft supply firm on its feet by a scientific analysis of inventory which reduced the spare parts it was carrying from 700 to less than 200 items.

There are just as many instances when a borrower might want the \$85,000 for the full 30 days or for a period up to a year. A cotton converter, who buys raw materials, pays for finishing and styling it, then has to wait for a seasonal demand for his product, easily may require the use of the money for six months. Under such conditions, when there is no anticipated reduction of principal, it is much cheaper to borrow from a bank than from a finance company, but there is an uncertainty that the unsecured credit will be available when needed.

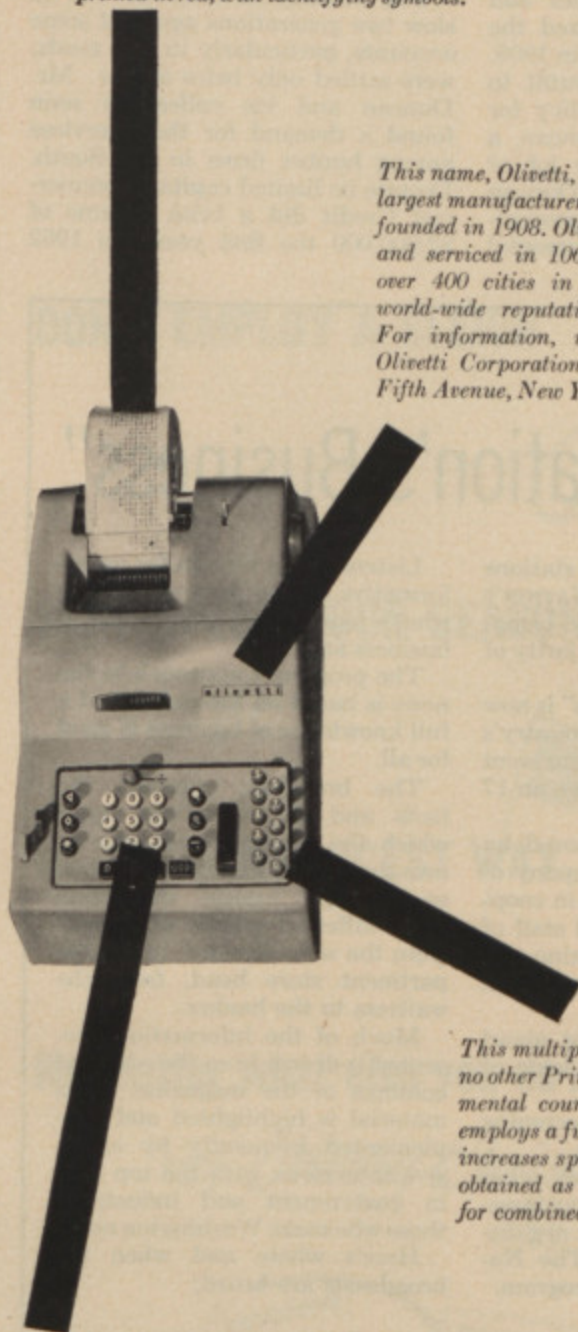
There is no question, however, that hypothecating bills is a great boon to young companies. If hocking receivables is the greatest invention since bottled beer, why don't businessmen make more use of it?

"Our big problem is bucking a prejudice that's a holdover from the horse-and-buggy era," Mr. Nicodemus says. "In the old days people thought a man who paid more than the usual bank rate of interest was crazy or one jump ahead of the sheriff, and the lender was suspected of usury."

"Today the opinion has changed. Lending money on receivables is respectable. The bankers' attitude today is proof. At the end of last year we were borrowing more than \$750,000,000 on unsecured credit. That's a lot of money to borrow on reputation and past performances, but we had no trouble raising it. Like our

This tape, printed by the only Fully Automatic Printing Calculator, the Olivetti, provides a complete record of all calculations in Multiplication, Division, Addition and Subtraction. Totals, Sub-totals and Credit Balances are printed in red, with identifying symbols.

This name, Olivetti, identifies Europe's largest manufacturer of office machines, founded in 1908. Olivetti products, sold and serviced in 106 countries and in over 400 cities in America, have a world-wide reputation for excellence. For information, write: Dept. AL, Olivetti Corporation of America, 580 Fifth Avenue, New York 36, New York.



This multiplication keyboard, found in no other Printing Calculator, eliminates mental counting; and the mechanism employs a fully automatic short-cut that increases speed 35%. The result can be obtained as a Total, or as a Sub-total for combined operations.

This is the speedy 10-key keyboard. Division is performed and completed, and the machine cleared, in one continuous automatic operation. Addition and Subtraction gain extra speed and accuracy through double and triple zero keys. Automatic keyboard lock prevents false entries due to incomplete depression of a key.

olivetti

customers, we need cash to expand our volume."

The growth of Commercial Credit reflects in miniature the history of American industry during the past 40 years. The idea of financing open accounts receivable on a non-notification plan was pioneered by two Chicagoans, Arthur H. Jones and John L. Little, who organized the Mercantile Credit Company in 1905. They asked a Cincinnati outfit to write a credit insurance policy for them and Alexander E. Duncan, a young agent, was given the job of studying the problem. Mr. Duncan was so intrigued with the proposition that in 1909 he was instrumental

in starting the Manufacturers Finance Company. Later he and four associates founded Commercial Credit on a stock issue of \$300,000 in June, 1912.

Mr. Duncan, incidentally, still is Commercial Credit's chairman of the board.

The velocity of business was so slow two generations ago that some accounts, particularly in soft goods, were settled only twice a year. Mr. Duncan and his colleagues soon found a demand for their services among lumber firms in the South. Despite its limited capital, Commercial Credit did a brisk volume of \$2,000,000 the first year. In 1952

total volume of receivables acquired was \$2,907,587,059.

The company today does not go in for speculative enterprises nor does it lend money on open accounts held against individuals. It deals only with manufacturers, wholesalers and jobbers who sell to other business concerns. But in the early days, when it was scrambling for business, the company took occasional flyers on such ventures as miniature golf courses and Mexican jumping beans, an episode which still gives old-timers a reminiscent shudder.

The Mexican jumping beans really were garbanzo peas, a staple of Spanish and Italian cooking. About 30 years ago, Commercial Credit financed the importation of a large part of the crop of garbanzos, which are grown only in Mexico, and stored it in New Orleans pending orders from abroad. Foreign customers balked at the price and while agents were trying to iron out the hassle the Mississippi River went on a rampage. Rising water threatened to ruin several warehouses, as well as the garbanzos; the peas would swell if the water reached them and literally blow the roofs off the buildings.

The flood subsided just as it was lapping gently at the doors of the warehouses but, in the confusion, boll weevils got into the garbanzos. Hundreds of tons of the things had to be fumigated. One aspirin tablet was being consumed for each pea when the crop was finally unloaded.

It is significant that Commercial Credit's biggest loss was suffered outside this country. In the 1920's it branched into foreign operation by financing automobile dealers. A fast \$5,000,000 was dropped in the operation, a large part of which was due to exchange fluctuations and restrictions, although credit and operating loss played their part, too.

"I'm not making a blanket indictment of foreign business integrity," Mr. Nicodemus says, "but to the majority of foreigners the idea of installment buying was utterly unknown and the average European did not think in terms of attaining the American standard of living."

That, in a nutshell, could well be the definitive difference between a free and a controlled economy. America outproduces the rest of the world because machines do 94 per cent of our work. The demand for those machines is created by consumer credit and bought on commercial credit, a parlay in which finance companies play an indispensable role. Their volume is an accurate index to the economic state of the union. And for the benefit of professional doom-criers, business never was better.

END

TUNE IN

"the Nation's Business"

TWENTY-SIX new stations have been added to the NATION'S BUSINESS radio network—bringing the program to the majority of American homes.

"The Nation's Business" is now broadcast in 43 of the country's largest cities. The program went on the air eight months ago on 17 radio stations.

The program is sponsored by Fairbanks, Morse & Company of Chicago and is produced in cooperation with the editorial staff of NATION'S BUSINESS magazine.

Any signs of recession in the wind?

What's Congress doing about taxes, social security, revision of the Taft-Hartley Act?

Are jobs for women becoming scarcer?

Answers to these and other questions which affect businessmen and their customers are discussed each week on "The Nation's Business" radio program.

Listeners can tune in for an informative quarter hour devoted to what's happening in the world of business and why.

The program's approach to the news is based on the belief that a full knowledge of business is good for all.

The broadcast presents the facts and the situations upon which the audience can base its own decisions. The program does so through topical discussion from different points of view—from the schoolteacher to the department store head, from the waitress to the banker.

Much of the information presented is drawn from the editorial columns of the magazine. This material is highlighted and supplemented frequently by exclusive interviews with the top men in government and industry—those who make Washington news.

Here's where and when the broadcasts are heard:

Atlanta WSB Mondays 7:15 p.m.
Baltimore WBAL Mondays 7:15 p.m.
Beloit, Wisc., WGEZ Mondays 7:45 p.m.
Birmingham WBRC Mondays 6:15 p.m.
Boston WBZ Tuesdays 8:00 p.m.
Buffalo WBEN Tuesdays 7:00 p.m.
Charlotte, N. C., WBT Mondays 7:30 p.m.
Chicago WGN Sundays 8:00 p.m.
Cincinnati WLW Tuesdays 7:15 p.m.
Cleveland WGAR Mondays 7:30 p.m.
Columbus, Ohio, WHCK Mondays 6:45 p.m.
Dallas KRLD Mondays 6:30 p.m.
Davenport, Iowa, WOC Mondays 6:15 p.m.
Denver KOA Mondays 8:30 p.m.
Des Moines WHO Tuesdays 7:15 p.m.
Detroit WWJ Mondays 6:45 p.m.
Duluth, Minn., WDSE Mondays 8:15 p.m.
Houston KXYZ Tuesdays 7:00 p.m.
Indianapolis WFBM Mondays 6:15 p.m.
Jacksonville WJAX Mondays 7:15 p.m.
Kansas City, Mo., WDAF Mondays 6:15 p.m.
Knoxville WNOX Tuesdays 6:30 p.m.

Los Angeles KFI Mondays 7:45 p.m.
Louisville WHAS Mondays 6:30 p.m.
Memphis WMPB Mondays 6:30 p.m.
Milwaukee WCAN Mondays 7:15 p.m.
Minneapolis KSTP Mondays 6:15 p.m.
New Orleans WWL Mondays 6:30 p.m.
New York WABC Mondays 6:30 p.m.
Omaha KFAB Mondays 6:30 p.m.
Philadelphia WCAU Mondays 7:30 p.m.
Pittsburgh KDKA Tuesdays 6:30 p.m.
Pomona, Calif., KPMB Mondays 6:15 p.m.
Portland, Ore., KGW Mondays 6:45 p.m.
Providence, R. I., WPRO Mondays 6:30 p.m.
St. Johnsbury, Vt., WTVN Mondays 7:45 p.m.
St. Louis KSD Tuesdays 7:15 p.m.
Salt Lake City KSL Tuesdays 7:30 p.m.
San Francisco KGO Mondays 6:30 p.m.
Seattle KOMO Mondays 6:45 p.m.
Stuttgart, Ark., KWAK Mondays 6:30 p.m.
Tulsa KVOO Mondays 6:45 p.m.
Washington, D.C., WMAL Mondays 8:15 p.m.

As Science Sees Them

(Continued from page 27)

the parasitic drag force of stationary landing gears led to the retractable landing gear. And NACA's systematic study of thousands upon thousands of airfoil shapes, or wings, guides plane designers.

The making of tomorrow's plane calls for real teamwork among the NACA, the military and the industry. Had you been standing alongside the runway at NACA's Edwards Flight Research Station at Muroc, Calif., Oct. 14, 1947, you would have witnessed an important instance.

On that day, a Boeing B-29 "mother plane" raced down the runway with a small stumpy-winged rocket plane attached to her belly. At about 30,000 feet, the small plane was suddenly launched on its own.

A fiery 100-foot blast shot out of the little craft's rocket tubes.

And then the plane accomplished what no plane before it had ever done. It flew faster than the speed of sound, across the rim of the supersonic boundary. The age of speed had been born.

But behind the fury of that small plane's thrust was a mountain of joint activity by the NACA, the military and the aircraft industry.

That plane, the X-1, was conceived in the labs of the NACA, where the basic research regarding the physical laws applying to low supersonic flying was sweated out beginning five years before. The Air Force provided the production contract in 1945, rigidly high standards, its own ideas on how to build the plane plus the pilot, young steel-nerved Capt. Charles E. Yeager of Hamlin, W. Va. Plane designer and constructor was the Bell Aircraft Corporation of Buffalo, N. Y., which worked closely with NACA scientists in solving unexpected day-to-day problems.

The Douglas Skyrocket, which reached an officially admitted 1,238 mph, is another plane developed under a joint NACA-military-industry program.

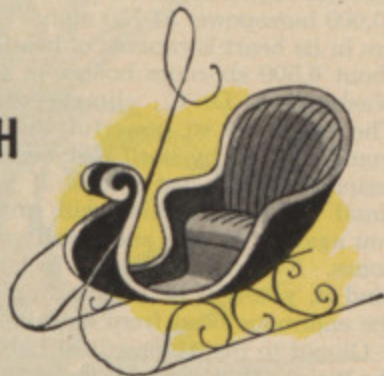
Although the Bell X-1 launched us into the faster-than-sound realm, and the Douglas Skyrocket rushed us further into unknown skies, we have a long way to go before Dr. Dryden can steer us safely to the moon and home again. But we can't say that enough hands aren't trying.

Drop in on any aeronautics lab across the country—whether industrial, military, college, privately endowed or NACA. You'll hear such supersonic jive as Froude numbers,

DON'T RELY ON REINDEER

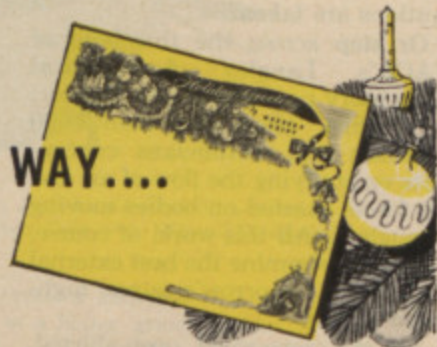


DON'T EMPLOY A SLEIGH



JUST SPEED YOUR SEASON'S GREETINGS

IN THE VERY NICEST WAY....



No matter what else you do...

say "Merry Christmas!"

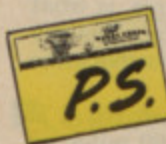
by TELEGRAM

On any Occasion
it's wise
to wire

Special "Santagrams"
for the youngsters.



WESTERN UNION



A Telegraphic Gift Money Order
makes a perfect present for anyone.

Reynolds numbers, Mach numbers, thermal barriers, sweptback wings, delta wings, stability parameters, turbojets, turboprops and rocket boosters.

Watch the flight lab test of a new turbojet engine developed at General Electric, Westinghouse, Curtiss-Wright, Allison Division of General Motors or Pratt & Whitney.

Turbojets convert their fuel to heat and then develop thrust from the heat by squirting air jets to the rear of the engine. The 3,650 pound, roaring, rasping Allison J-71-A-1 turbojet engine has a thrust equal to 20,000 horsepower at 750 mph. The fire in its heart is capable of heating about 6,500 six-room houses in the Washington, D. C., climate zone. The engine is so powerful that it would take off by itself if it weren't fastened to the test stand. If you stand too close, suction will smash you against its side and crush your bones. Even standing 100 feet behind it, you will be sent sailing by the enormous blast from its tail.

Go out to the Aeromedical Lab at the Wright-Patterson Air Force Base at Dayton, Ohio, where among other problems studied is that of coping with high-altitude flying where human blood boils unless proper precautions are taken.

Or step across the threshold of NACA's Langley Aeronautical Laboratory near Old Point Comfort in Virginia. Here more than 3,000 scientists and technicians concentrate on studying the flow of air and the forces exerted on bodies moving through it. All this work, of course, will help determine the best external shapes for tomorrow's super high-speed planes.

Ask the crepe-soled, open-shirted, chain-smoking young scientist at the 4 x 4 foot supersonic pressure wind tunnel what he's up to and he will answer in what sounds like a foreign tongue:

"I'm measuring the effect of transition from an attached to a detached shock at the leading edge of a finite span 8.2 degree wedge as the angle of attack is being increased from 0 degrees to 11 degrees."

To solve the most theoretical problems of flight, NACA's Langley center has a Gas Dynamics Lab. From the outside, it looks like an ordinary warehouse. But from the inside you get a fair idea of its power from the fact that its control room makes sure that only one test is going on at a time. Multiple experiments could gum up the countryside explosively. Sometimes even with one experiment in the works, people call up from miles away to find out if a major disaster has occurred.

The Gas Dynamics Lab is a pure

science shop dealing with the physics of air and gases under fantastic speeds, shock conditions and heat. Here scientists simulate flight a decade or two hence by shooting air at small, enclosed stationary models of plane parts at controlled speeds up to 7,000 mph. By varying air densities, they can attain simulated altitudes up to 200,000 feet.

As the next step in its research, Langley has about 20 wind tunnels where stationary, full-sized planes and plane models can be put through scientific hoops. You have to see a wind tunnel to appreciate it. An eight foot wind tunnel doesn't sound like



much. But it may cost \$35,000,000, cover a city block and work up a drive of 200,000 horsepower. A wind tunnel is an enormous mass of steel, shaped generally like an elongated doughnut, through which controlled air comes swooshing at the stationary object studied. From their comfortable seats in electronically equipped observation rooms, technicians can check the plane's *lift*, or vertical force, the *drag*, or horizontal force, and the *moments*, or sideward forces at varied speeds.

The third step in pure flight research is free-flight observation. This NACA's Langley center does at Wallops Island off Virginia, where unconventional "aerodynamic shapes" about five years ahead of today's production lines are propelled by high-velocity rockets over the Atlantic. By radio signals they send ground observers information on matters such as their angle of attack, acceleration, pressure and temperature. Some travel more than four times the speed of sound and, because of their large size, approximate conditions fighter planes will meet at that speed.

All this scientific study is just scratching into the crust of the enormous problems that must be solved before supersonic flying becomes an everyday experience. More and more brain twisters keep cropping up the further scientists get into the field.

One of these, for example, is what can be done to offset surface heating of planes at low-altitude supersonic flying?

In scientific lingo, Mach No. 1 is the speed of sound, or 760 miles an hour at sea level. At Mach No. 4, or

four times the speed of sound, the heat of the plane's surface will rise to 900 degrees F. At Mach No. 10 it will rise to 10,000 degrees, which is approximately the heat of the sun.

Today's aluminum alloys lose their strength at about 600 degrees F. But NACA scientists aren't too concerned about this. They will either have to devise an artificial cooling system, use other metals, such as stainless steel or titanium, or make a new type aluminum alloy.

Or take the fuel problem of high-speed, long distance flight.

Petroleum products admittedly occupy too much space and don't release enough energy to meet requirements. Liquid oxygen and hydrogen, atomic energy or fluorine may be the plane fuels of the future. If atomic energy is the answer, scientists will have to find lightweight shields to protect plane occupants from injurious rays.

High-speed flying has further unanswered problems. To reach high Mach numbers, we will need slenderer fuselages and almost paper-thin wings. How can these be made strong enough so that they won't buckle, go into a flutter vibration dance or disintegrate suddenly from fatigue?

New developments in automatic controls are also needed. At high Mach numbers, normal human reaction time makes human direction of the plane impossible or dangerous.

Still another puzzling problem is how to construct a supersonic plane that will fly with equal balance and control in the subsonic and transonic speed ranges. The transonic range lies between 600 and 800 mph.

Supersonic planes have to take off and land at subsonic speeds and have to clear the transonic range both going and coming. At subsonic speeds, the air knows you are coming and deviates from your path. At supersonic speeds, your plane slashes its way through the air. At transonic speeds, a mixture of the two occurs in proportions not as yet determinable. At the exact speed of sound, enormous shock waves, called chokings, occur.

Some designers think that the answer to this problem may come in varying the shape of the sweptback or triangular or delta supersonic wings during the plane's flight. This might be done by altering the sweep angle of the wing at different speeds. Some think it can be done by using flaps, either in the wings or elsewhere.

On the Langley NACA staff, his pockets stuffed with slide rules, is a relaxed, handsome Irishman from Lowell, Mass., named John Stack, who doesn't believe these problems

are insoluble. On the side Mr. Stack runs a farm, an oyster bed, was once on a national rifle team. He heats his house with the same type coils you find in an electric blanket. In a recent hurricane which ripped electric circuits in the Yorktown, Va., area where he lives, Mr. Stack showed his ingenuity by heating his coffee pot with a blowtorch.

His principal scientific efforts, however, lie in another direction. It was chiefly his pioneering research which, in combination with the industrial prowess of the Bell Aircraft Corporation and the flying ability of Captain Yeager, produced the X-1.

He is also the first man to operate a wind tunnel at exactly the speed of sound, previously considered impossible. He did this while pioneering the first transonic wind tunnel. For his achievements, Mr. Stack has won aviation's equivalent of two Pulitzer awards.

Mr. Stack takes all this as part of the day's work. One of his goals is interplanetary travel, which he admits is a long way off. "But we've got to do it," he says impatiently. "One of those darn planets might be made of pure uranium."

From his vantage point roaming the sprawling Langley Labs, he has a good idea of our air potential in the next decade. Back in 1934—he was then 28—planes were lumbering their way across the sky. But he predicted they would have a 550 mile an hour capability by 1944. Even though at the time he came in for some first-class scoffing, his forecast came true.

In what direction will flying go in the next ten years? Mr. Stack goes so far as to say:

1. "All combat military planes will be supersonic by 1963. They will travel capably at twice the speed of sound, or faster than the speed with which the earth rotates."

2. "On the transport side, supersonic flying will be available, but because of high operating costs, passenger flights across the Atlantic or from coast to coast will probably be made by jet liners in the 550-600 mph range. Whether you go to London in two and a half hours by supersonic plane or in five hours in a jet liner will be determined by how much more you will be willing to pay for the extra speed.

"In ten years, supersonic planes probably still will be immense eaters of fuel. As a result, they will carry mostly fuel and will not be able to accommodate many passengers."

3. "We will be able to go anywhere on the globe nonstop."

4. "The supersonic plane of 1963 will be unlike anything we have seen so far. It will probably be made of



Your Christmas Greeting

CAN LAST ALL YEAR...



This out-of-the-ordinary Gift combines
Perfect Taste with Unusual Thoughtfulness

Your "Merry Christmas" is warmly received and well remembered when it takes the form of a living, growing plant. Customers and business associates find this remembrance in perfect taste. For here's a lasting gift that's welcome anywhere.

There's a place for a plant in every man's office

And it's so easy. Just take a few minutes to discuss your choice with your F.T.D. Florist. Then turn over your list to him . . . and forget it.

You can be sure your Christ-

mas Greetings will arrive where you want them . . . when you want them. Because, whether your customers are across the country or across the sea, F.T.D. Florists guarantee delivery.

Say it with Flowers-By-Wire

Be sure to look for SPEEDY, and the FAMOUS MERCURY EMBLEM. They identify members of F.T.D. and INTERFLORA all over the world.



FLORISTS' TELEGRAPH DELIVERY ASSOCIATION
HEADQUARTERS: DETROIT, MICHIGAN

stainless steel or titanium and will weigh about 200,000 pounds. Its thin narrow wings will be set toward the rear of the long, sleek fuselage. With pressurized cabins, its interior will be fully as comfortable as commercial planes of today."

5. "Supersonic seaplanes will be in abundance. Since they take off and land on water, snow and wet sod, the military will be able to scatter its planes and yet have them rendezvous easily."

"Supersonic seaplanes are already here, thanks to NACA's development of retractable hydro-skis in co-operation with the Navy and Consolidated-Vultee."

6. "We will probably have 'vertical risers' by 1963."

"The vertical riser combines the vertical ability of the helicopter with the horizontal abilities of the airplane. It will take off and land verti-

cally and fly horizontally at a speed of at least 400 mph. It means we will be able to get in and out of insignificant places, yet fly swiftly. NACA already has developed a vertical riser which, by deflecting wings and flaps like a venetian blind, is able to accelerate air straight down. But the NACA model is experimental and will not be the type in use by 1963."

7. "If we improve our guidance, we might be able to shoot mail from New York to Boston by short distance rockets in ten years."

8. "On long distance rockets, if we wanted to do it badly enough, we could construct a 5,000 mile range warheaded stainless steel or titanium rocket. But even if we made this guided missile, we wouldn't be able to pinpoint it on a barrel by 1963."

9. "It is a relatively small development from where we are today to shoot a satellite vehicle just beyond

1,000 miles from the earth. This satellite 'planet' would revolve around the earth every few hours."

"However, the cost of the satellite would be about \$2,000,000,000, and its uses have not yet been fully explored to show whether it is justified."

There will probably never be a time when the flight industry will sit back on the proverbial laurels and become static. The performance features that set it off from all other industries are speed and distance. And it has an insatiable appetite to advance both.

We may as well grow accustomed to winging our way with it, no matter what strange planet it leads us to. For as Wilbur Wright put it a long, long time ago:

"We see enough already to be certain that it will be magnificent."

END

7 Who Guide Our Destiny

(Continued from page 32)

for mutual security; and William Y. Elliott, of the Office of Defense Mobilization.

The chairman of this staff is Robert Cutler, a man of extraordinary energy who, as a special assistant to the President, has a watchful eye over all of the business of the Council. A former Boston banker, he was a brigadier general during World War II and served as an assistant to the late Henry L. Stimson, Secretary of War. He has communicated his driving energy to the Council and its supporting units.

The planning staff also has two advisers: Maj. Gen. John K. Gerhart of the Air Force, who is attached to the Office of the Joint Chiefs of Staff; and Robert Amory, Deputy Director of the Central Intelligence Agency.

An Operations Coordinating Board was added to the Council last September as a result of a long-felt need. Top leaders have found that their directives sometimes miscarried in one way or another when they reached the lower echelons for execution. Now when President Eisenhower issues a directive or a policy is spelled out, it will be the duty of this group to see that it is not pigeonholed, delayed or improperly carried out.

The chairman of this board is General Walter Bedell Smith, now Under Secretary of State. He learned a good deal about Russia as director of the Central Intelligence Agency, as ambassador to Moscow and as Ike's chief of staff during World War II. His fellow-members are

Roger M. Kyes, who as Deputy Secretary of Defense is the second ranking man of that department; Harold E. Stassen; Allen W. Dulles, director of the Central Intelligence Agency; and another personal representative of the President, C. D. Jackson, special assistant for cold war strategy.

A vital unit under policy control of the Council is the Central Intelligence Agency, gathering from all over the world the critical data which is used as the raw material of planning by NSC.

The Council is further supported by the National Security Council Staff, which provides the secretariat, prepares the agenda for its meetings, maintains its records, and serves as the official channel of communication with the agencies that carry out approved policies. This staff is headed by James S. Lay, Jr., executive secretary of NSC, who served in the Military Intelligence Division of the War General Staff during World War II.

It should be noted that the members of the Council and of its two key units, the Planning Board and the Operations Coordinating Board, are all officials of State, Treasury, Defense, Foreign Operations Administration and Office of Defense Mobilization. Thus every official connected with the Council has a ground-floor intimacy with policy development in his own department and he applies this in his work for the Council.

Altogether these officials form a sort of interlocking directorship that is designed to assure that every man

is completely conversant with planning, programming and policy making. It is a design intended to gain "the integration of domestic, foreign and military policies relating to the national security" that Congress ordered.

Secrecy if carried too far can defeat the aims of security. Aware of this, the Council frequently calls on specialists and consultants of many kinds for assistance on special projects. Last March President Eisenhower named a group of seven consultants who represented industry, education, journalism and labor. Thus the NSC obtains the benefits of latest developments and thinking in civil life.

One of these consultants, for instance, was Charles A. Thomas, president of the Monsanto Chemical Company, an individual and a corporation that gained considerable experience in atomic energy through their former operation of the Oak Ridge (Tennessee) plant of the United States Atomic Energy Commission.

In the military field of course the principal advisers of the Council are the Joint Chiefs of Staff. Other experts throughout the government are called upon as their talents are required. The designated advisers are Adm. Arthur W. Radford, chairman of the Joint Chiefs of Staff, Allen Dulles and C. D. Jackson.

The Council this year has been meeting at least once a week. Previously it had held only 128 meetings since its first one in September, 1947.

The planning staff meets three

times a week to develop the projects that go on the Council's agenda. The new Operations Coordinating Board is presently meeting once a week.

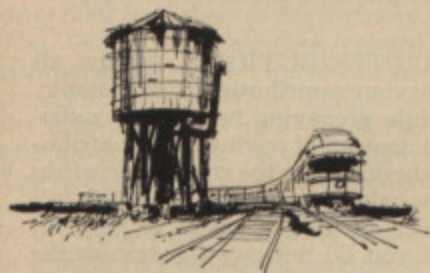
Of course the members of the NSC and of the supporting units are working in their own departments when not attending the group sessions.

Persons familiar with the Council's operations assert that it is now animated by a purposeful spirit, a determination to face up to decisions and to make them promptly. One witness says that the Council's deliberations under the Truman administration were inclined to be general, its decisions watered down by compromise. Moreover the decisions were slower in coming through. The old group tended to concern itself with emergencies after they occurred.

That forced this country sometimes to improvise policy in the midst of a grave crisis, as when the Korean war broke out.

The new Council not only concerns itself with putting out today's fires but devotes a great deal of forward planning to the prevention of international conflagrations.

When the President makes a decision now, he allocates responsibility for carrying it out. He may specify that a particular project is to be carried out by the State Department and the Office of Defense Mobilization. He doesn't stop there. He also allocates to the Operations Coordi-



nating Board the responsibility for following through to see that the project is correctly executed in every particular.

The President, because of his vast experience in national security matters, is able to make rapid decisions in this field. The day before a Council meeting Mr. Cutler presents him with a copy of the agenda and they go over it in detail. When the Council meets, it generally makes a decision then and there on the matters in hand. The next morning the implementing documents are before the President for signature and action begins.

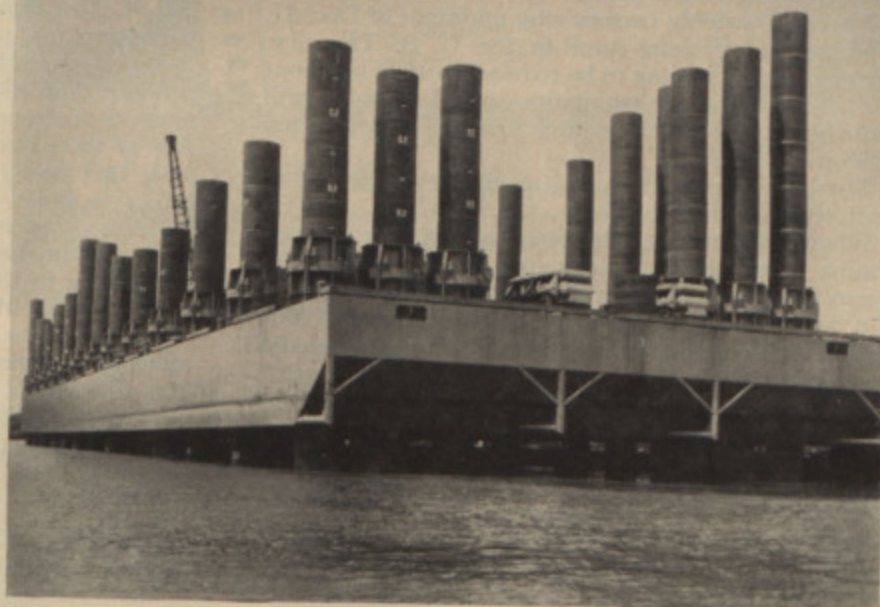
"There is no area of security that isn't covered by the Council," says an informed source. "Its radar sweeps the world."

END

this ocean going dock

Lifts itself by its Bootstraps

to save months of construction time



The illustrated dock was constructed for the United States Army Transport Corps by Consolidated Western Division of United States Steel Corporation at Orange, Texas, on plans furnished by the DeLong Engineering and Construction Co.

When military or construction projects call for a new cargo wharf anywhere in the world, the unique DeLong Dock can be in place and in use many months before a conventional dock built on the site.

The DeLong Dock is built in barge-like sections in a shipyard. It can be towed thousands of miles to location—where it actually raises itself above water on long steel "legs," or caissons.

Key to swift erection is the powerful DeLong Airjack—so sensitive it can control dock elevation to within 1/32 of an inch. One Airjack acts on each caisson—and all operate at the same time, dependably powered by compressed air from Gardner-Denver Portable Air Compressors. Gardner-Denver Company, Quincy, Illinois.

SINCE 1859

GARDNER-DENVER

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS
FOR CONSTRUCTION, MINING, PETROLEUM AND GENERAL INDUSTRY

tax TIMING can save you money

THE MOST important date to you, as far as your income tax is concerned, is Dec. 31, 1953. Until midnight of Dec. 31 you can do a lot of things that will determine in hard cash how much your 1953 tax is going to be. After that date, it is too late. From then until March 15, 1954, all you can do is worry about the accuracy of your return—but you cannot change your true tax by one penny.

There are two big reasons why midnight of Dec. 31, 1953, is the witching hour in the U. S. Treasury. Income taxes are going to be reduced in 1954 by about ten per cent; and the maximum capital gains tax will probably be lowered by nearly four per cent to a top of 25 per cent.

These facts make it more vital than ever for you to start your tax timing now.

What is tax timing? It means two things: 1, postponing your income, to equalize the tax burden between two years, or, as in this case, to take advantage of a downturn in the tax rates, and 2, prepaying your deductible expenses, as many as possible, to increase your deductions in a year of high income and high tax.

These points are especially pertinent in 1953 and 1954 because your deductions can save you more money this year; your income may be worth more—because taxed less—in 1954.

And even if no tax reductions are made in 1954, the facts about tax timing are important now and every year to come—until, that is, the income tax is repealed.

Here are some of the basic facts that will help you time and reduce your tax:

On prepaying your deductions, it is required that you make the actual payments, not just give promissory notes. You may want to borrow cash to prepay deductible taxes, interest, contributions and expenses. You can even take an additional deduction by prepaying the interest on this loan this year, even though the debt is not due until next year.

Merely postponing income to which you are entitled this year will not make it taxable next year instead. But many types of income can be postponed for tax purposes, for example, bonuses, Christmas gifts and additional compensation not already contracted for.

You can postpone most of an annual retainer until 1954; take only a small portion in 1953.

You can defer income—except compensation income—by forming business partnerships or real joint ventures with another person.

If your income comes from compensation there are several possibilities open to you: 1. You may make pay deals that compute your salaries, commissions or bonus indeterminable in 1953. 2. If your pay is not collectible this year, you pay no tax until you do collect.

Your salary can be cut this year, increased in 1954.

You can postpone payment of income by making a bona fide new contract which calls for such extension.

If you are on a drawing account against commissions,

your employer may arrange a plan so that you do not draw your full earnings until 1954. If your drawings are less than your earnings, you pay tax only on the drawings taken in 1953.

It is possible to make stock purchase deals representing extra potential income which defer your tax to the years when you sell the stock at a profit.

You may take an option to buy stock in 1953, in lieu of extra income, paying no tax until you exercise the option, profitably, in, say, 1954.

If you are in business for yourself, or are an independent professional person, you know that there are many deductions allowable from your taxable income. Any of these that you prepay this year are deductible from this year's income. Also, you have the opportunity to defer many kinds of income in your own business. Now is the time to see what might be worth while postponing until next year; even if taxes are raised later in 1954 (there is a threat of this) you may take yourself out of a high bracket by postponing part of your income. It is quite likely that there will be more deductions, as, for example, for retirement benefits, allowed to small businessmen and professionals next year. But don't overlook the consequences of boosting yourself into the next higher tax bracket.

Here are some other points to watch in cutting your 1953 tax:

CHARITABLE CONTRIBUTIONS: Study all possibilities of making your contributions; for example, it might be worth while prepaying two years' contributions in 1953. And, instead of paying such contributions in cash, you might donate to the charity securities which have gained in value. You can deduct the full present value of your contribution, up to 20 per cent of your income, and you do not pay the tax on the profit made on the securities. But remember that 20 per cent annual limit. If at the time of making your prepaid contribution you also postpone your income, be sure to adjust your gifts to the 20 per cent top for each year.

INTEREST: You can select the year of payment of any amount you really owe. You are allowed to deduct advance interest payments, margin interest, interest on instalment purchases and interest secured by property held by you and your wife. All of these may be prepaid. As suggested, it may be worth while borrowing money to do this, since the interest on the money borrowed is deductible. Every dollar you prepay costs you only 80 cents or less, based on current tax rates.

HOME OWNER: If you own your own home, you may be able to pay two years of real estate taxes in one year, depending on when they come due.

Remember, there is nothing illegal or unethical about trying to cut your taxes. You owe the government legally and ethically only what the law says; and all you save is a bonus.—WALTER ROSS

END

—Ancient Proverb

EVERYBODY KNOWS BETTER THAN ANYBODY

PEOPLE IN AMERICA hold meetings, speak out, express their ideas.

A vote is taken on the question under discussion.

"All those in favor—*aye*. Opposed—*no*."

Majority rules.

"*Everybody knows better than anybody*."

This is the American way.

This is the solid, democratic foundation on which the policies of the Chamber of Commerce of the United States are established.

The Chamber represents the majority views of business—large and small, and in every section of the country—on important national issues. For instance:

What to do to keep America's defenses strong and, at the same time, avoid unnecessary spending? What to do to develop a more equitable tax system? To create new jobs, new markets? To decentralize the government? To improve labor-management relations? To build a better public understanding of the American profit-and-loss system?

Once the views of business are determined, the Chamber voices those views.

The Chamber works to explain the stand of business on national issues, and to put the reasoned conclusions of business into action—in the public interest.

You, as a business man, can add your weight to this work, through your local and state chamber of commerce, and through the national organization.

CHAMBER OF COMMERCE



Shown here is R. T. Titus, Executive Vice President of the Western Forest Industries Association, speaking from the floor at the National Chamber's recent Conference in San Francisco on Federal Lands.

OF THE UNITED STATES • WASHINGTON 6 • D C

your season's pass to

REZNOR MANUFACTURING CO.
23 UNION STREET · MERCER, PENNA.
Please send information on unit heating

Name _____


Firm _____

Address _____

City _____ Zone _____ State _____

Automatic Comfort

REZNOR



the world's largest-selling

GAS UNIT HEATER

UNGUARDED EXITS COST YOU MONEY!

With EXIT LOCK, you Legally lock back doors, emergency exits... end pilferage, shoplifting, time-clock chiseling, paid admission evasion, without special guards to watch doors. Only authorized persons open door using key... in case of emergency, EXIT LOCK instantly opens and sounds alarm.



APPROVED by Underwriters Laboratories, Insurance Safety Engineers. Used by industrial plants, retail stores, institutions, and others.

EXIT LOCK, 11244 Peoria St., Sun Valley, Calif.
Please send folder with complete details on EXIT LOCK.

Name _____

Firm _____

Address _____

City _____ State _____

paper snow fence is made from continuous strips of waterproof paper a foot wide, fixed to metal posts with staples. Three or four of the strips make a fence of the required height. Last winter the paper came through ice and sleet storms without tearing, and the savings over wooden or metal fences may make possible a much more extensive program of drift control. Occasional open places are provided to permit wild life to pass through.

North Dakota is using a fence known as a snow-blower, not for drift control but to deflect the wind onto the roadway to blow off the loose snow. This technique, utilizing solid wooden fences, has been used a good deal by the railroads. Some highway departments in the Great Plains area make their snow fences out of snow, and plow the fields instead of the road. Trenches are plowed through the snow in fields adjacent to the road, and the resulting ridges thrown up in the fields act as snow fences.

THE importance of putting a snow fence in the right place was demonstrated last year on U. S. Highway No. 6 in Utah, where the plows had thrown up eight-foot banks of snow on either side of the road. After the road surface had been completely plowed the wind began to blow, and the snowbanks began to function like snow fences. The driving wind, laden with soft snow, completely filled the traveled way with powder in an hour.

Among other preventive steps taken before the snow arrives, 102 government units now use extensive networks of two-way radiotelephone communication between operating bases and mobile equipment. These radio networks blanket one third of the nation. According to H. A. Radzikowski, chief snow man for the U. S. Bureau of Public Roads, radio is among the best snow removal equipment a highway department can buy. Radio furnishes up-to-the-minute weather information and permits rapid deployment of available plows to meet the storm when it arrives. In combination with good weather reporting it has increased the effectiveness of snow fighting equipment by 30 to 50 per cent. Radio has also been a boon to the snow fighters who must sometimes be out on the road 24 to 36 hours at a stretch.

A radio call for help when machines break down or drifts become unmanageable permits rescue crews to be dispatched promptly.

In California winter road conditions are radioed every morning at seven from all parts of the state and an hour later road conditions throughout the state are broadcast

by commercial stations for the benefit of the motoring public. Wyoming and Michigan are doing a similar job in the interest of safer winter driving.

It is now possible for snow removal to start with the storm and keep ahead of it with light, fast plows whose speed helps throw the snow far off the right of way. When the weather gets the jump, it may be necessary to bring up the heavy artillery—the V-plow or the rotary that blows the snow 150 feet off the road. Rotaries are used extensively in mountainous country where towering drifts are encountered and where there is less chance of hurling a stream of snow through somebody's window. And now a rotary has made its debut in the city—one equipped with a chute that aims the snow right into the waiting truck. Sometimes dynamite becomes the final resort when heavy accumulations of snow and ice fail to respond to the plow.

It has been said that part of the credit for improving winter maintenance should go to winter itself, because winters nowadays are not what they used to be. The weather man and the snow fighters will take issue with this claim, and certainly the statistics fail to bear out the view that it snows less than it used to. Last year in Colorado the highway department was pushing through snow drifts 80 feet deep, and many a truck driver was stranded until the snow plows dug him out.

Two years ago repeated heavy snowfalls in eight western states, with individual storms depositing up to 40 inches at a time, made normal snow fighting equipment totally inadequate. Drifts up to 50 feet deep led to an emergency call to the Fifth Army whose famous Operation Snowbound turned out to be history's greatest mass bulldozer project. The Army opened up 89,000 miles of impassable roads with 1,100 pieces of heavy equipment, to relieve the acute distress of some 1,500,000 people and 4,000,000 animals.

NOT all winter operations are as dramatic as Operation Snowbound, but in the course of the season many a maintenance crew finds that keeping all available equipment operating continuously day and night means winter enough. The illusion that the snow is not as deep as it used to be is perhaps explained by the achievements of the snow fighters, whose job is being done so well that it makes the winter snows seem less severe than used to be the case. With snow melters, radiant heating, and eventually the snow-resistant pavement, motorists can expect more spectacular victories ahead in the cold war against winter.

END

It's Social, But It's Not Security

(Continued from page 35)

situation when we can't actually use him but want him to get his needed quarter of coverage anyway?

The family itself frequently produces needed quarters of coverage.

Friends frequently ask me, "Can I employ my mother-in-law as a domestic?" The question might be framed, "Can we legally report wages under an employer-employee arrangement we worked out with my wife's mother, for social security purposes?"

I understand that the official answer is, "Yes, but only if it is bona fide." When is it bona fide? I'm not certain.

Foreseeing attempts to "manufacture" coverage, Congress outlawed some family employment—that "performed by an individual in the employ of his son, daughter, or spouse."

But this still leaves potential "employment" of an individual needing a little coverage by brothers, sisters, nephews, cousins, etc., as well as by friends.

Present social security thus has the unique effect of strongly tempting benevolent chicanery in reporting and paying taxes on artificial earnings.

Uncle Sam will be barred from practicing social security tricks himself if a recently introduced bill is passed.

If a worker, who is retiring under Civil Service, can be put in a government job covered by social security for a year and a half, he can then retire with both social security and civil service benefits. The proposed

bill would prevent this double payment.

The socially unfortunate aspect of the present situation is that many most likely to need the social security protection are the least able to get the required six quarters of coverage.

THE coverage requirement was designed primarily to deny benefits to individuals who are exempt from social security taxes. It has not been very effective in this respect. They can pick up the required minimum at off jobs in covered work. But it has proven most effective in the case of the very aged, particularly widows, who would be receiving social insurance under existing law except for the fact that the system started too late for them to get the presently required token coverage.

The primary reason for the token coverage requirement and its unfortunate results would disappear if Congress adopts the United States Chamber of Commerce recommendation for eliminating the social security exemptions and making today's unprotected aged eligible for minimum social insurance protection.

Certainly the broad social insurance program of our social security system can and should meet its social purpose by covering all gainful work and giving minimum past service credit and protection to all today's unprotected retired aged.

All of us whose taxes must support both social insurance and relief have a vital stake in thus improving social security.

END

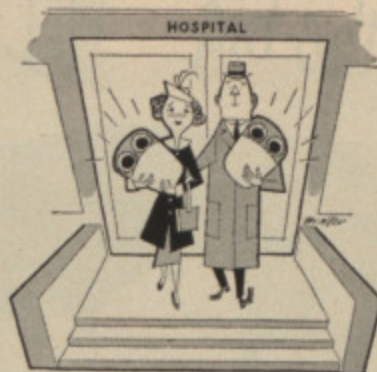
SOCIAL SECURITY CAN BE SOUND

Experience now demonstrates that adherence to the basic purpose of a sound social security program for the aged requires:

- Adoption of a reasonable plan, in lieu of federal grants for old-age assistance, to extend immediate protection under the Old-Age and Survivors' Insurance system to the present unprotected aged; and
- Periodic adjustment of the equal taxes on employer and employee and the tax on self-employed to support benefit disbursements on a current basis.

From "Policy Declarations" of U. S. Chamber

Got a Moving Problem?



PERFORMANCE PLUS—



That's what AMERICAN RED BALL'S moving specialists offer! Home or office—everything's safe—at lower cost than most! Call your nearest AMERICAN RED BALL agent (listed in the yellow pages of your 'phone directory!) for FREE PERSONALIZED ESTIMATE!

Rely on

American RED BALL

TRANSIT COMPANY, Inc.
PIONEER NATION-WIDE MOVERS

are you spending

\$1.49

to sharpen each pencil?



Improper pencil sharpener placement may be costing you as much \$1.49 to sharpen each pencil! Let APSCO's free booklet "The Mystery of the Hidden Costs" show you how to eliminate this unnecessary waste.



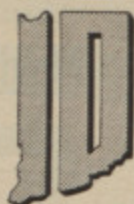
Apsco products inc.
DEPT. N-4
336 NORTH FOOTHILL ROAD
BEVERLY HILLS, CALIFORNIA

Yes, I'm interested in reducing office overhead. Please send me your free booklet.

NAME _____

(Attach coupon to your letterhead or business card and mail today!)

what's
the big



That big "ID" shown above is your guide to greater desk value . . . a symbol of honest craftsmanship, of enduring investment. You'll find it in the middle drawer of every Indiana Desk. And in every Indiana Desk you'll find selected woods, skillfully fashioned into an efficient working tool for today's office — lastingly durable and attractive — with real budget appeal.

Don't buy until you see your Indiana Desk dealer. If you don't know his name, please write us now.

indiana desk co.
JASPER, INDIANA • U.S.A.

5 movements in one
numbering
machine

**FORCE
5 Action**

One machine fills scores of numbering needs . . . provides consecutive, duplicate, triplicate, quadruplicate or repeat numbering at the flick of a finger.

Write
for prices
and
catalog.



WM. A. FORCE
A COMPANY, INCORPORATED
216 NICHOLS AVENUE, BROOKLYN 2, N.Y.

Dogs Put Teeth In Store Protection

(Continued from page 44)

a demonstration was given in front of the reviewing stand. A detective fired blanks at a trained shepherd and the dog attacked him. Another detective, seeing the gunfire, drew and killed the demonstrating plainclothesman. Somebody had forgotten to tell the second detective it was all in fun.

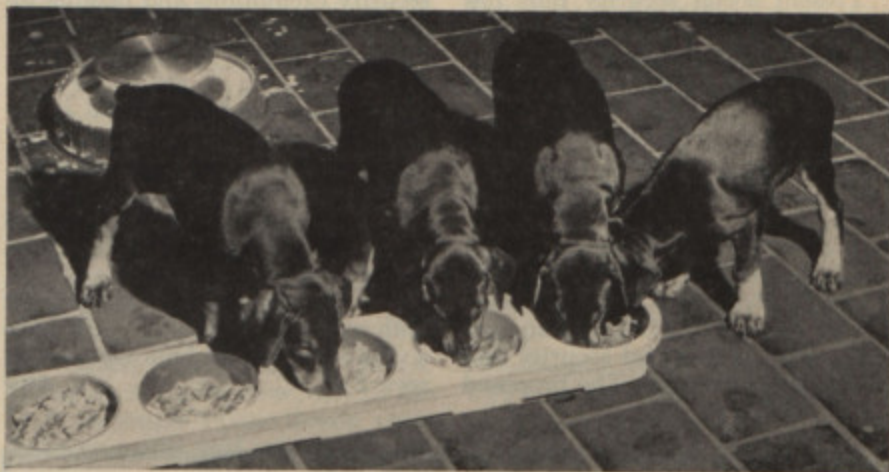
Mr. Behan squirms every time he reads about police officers who must storm a cornered hoodlum who welcomes death and wants to take along as many cops as he can before the finish. Says Behan, "The dogs would end all this nonsense. Just warn the cornered gunman that you are going to loose a dog on him. Now, here's a funny thing: If the man is crazy he will surrender more quickly than a sane killer. Idiots are more afraid of dogs than sane people. And everybody is afraid of trained dogs."

What happens if there is no surrender? "Send the dog in. He has been taught that his only hope of survival when a man is shooting at

dog he was willing to sacrifice?" Behan asked. "Why, Willie would be in Duluth before anybody got to a telephone."

Mr. Behan trains the handler along with the dog at no extra fee. He works a half year with the animals but four weeks are ample for the human. And, as at Macy's, one trained human can easily teach others to handle the animals. Behan is wryly amused at a business that will leave millions of dollars worth of merchandise overnight in the care of a superannuated hired hand who is usually too smart to go snooping into dangerous, dark corners. If the guard does risk such a search he is a sitting duck for almost anybody lurking in the blackness. "A dog makes a better watchman out of any man," Behan says. "And, if the guard's a young fellow with adequate incentive to do a good job the combination is deadly. The dog works well, so does the guard."

How about enticing the dog from his chosen duties with something



Watchdogs of the future eat heartily in Macy's luxurious penthouse kennel on Herald Square

him is to kill the man. If the dog is hit he'll keep coming. But they are all so fast, so elusive that they are terribly hard to hit. If the dog attracted gunfire the flashes would make it just that much easier for the cops. What can they lose except an occasional dog? It would save an awful lot of police lives."

If the cops don't want the dogs an occasional underworld figure does. When Behan gets a request from an unfamiliar name he asks the local police to check the prospective customer. He has turned down several. "Can you imagine Willie Sutton holding up a New York bank with a

that appeals to the animal's appetite? Food, for instance, used either to poison or to make a friend. Behan said the animals had been taught to eat only in their kennels so if the thief could keep the dogs quiet until he got to the kennels he might poison them. But, the dogs raise a ruckus when the handler approaches, so—.

I asked Behan what would happen if the thief brought along his own dog. A lady dog in a romantic mood. Behan found just such a lady brooding about the campus and the Doberman in training immediately reacted like any decent, red-blooded Doberman should. But, at a word from

"I read Nation's Business..."



"We advertise in Nation's Business"

Oscar D. Nelson

Oscar D. Nelson, President, Butler Manufacturing Company.

NATION'S BUSINESS IS READ BY MORE EXECUTIVES THAN ANY OTHER BUSINESS OR NEWS MAGAZINE

REMOVE THE DANGER OF OPEN AREAS



Here's the solution!

Blaw-Knox Electroforged Steel Grating is the ideal "coverage" for unprotected pits, light wells, basement stairways and other hazardous open areas. It is a one-piece steel "material" that provides safe footing under any conditions, and admits the maximum of light and air. *Strong... Silent... Secure.* Thousands of installations are still on the job after 20 years of traffic!

Send us dimensional sketch

We will then forward you price on grating cut to exact size. No nuts, no bolts, no special tools required. Don't delay... write today and make those danger spots both safe and usable!

BLAW-KNOX COMPANY
Grating Department

BLAW-KNOX EQUIPMENT DIVISION
2044 Farmers Bank Building, Pittsburgh 22, Pa.
STerling 1-2700

BLAW-KNOX GRATING

ELECTROFORGED®
STEEL

Stop... FORGETTING!
a must for your desk!

YOUR NAME IN GOLD

THE MODERN MEMORY MINDER

"CAN'T FORGET-ER"

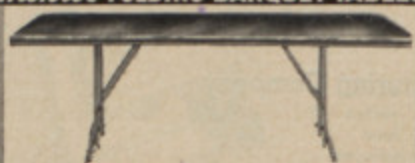
Joe's simple system systematizes all office routine for the busy executive and every member of the office. A modern, streamlined record—eliminates duplication—gets action and follow-thru on every transaction made in and out of the office.

"CAN'T FORGET-ER"
P. O. Box 250-S
GAINESVILLE, FLORIDA

Joe's "CAN'T FORGET-ER" is an ideal gift one will never forget.

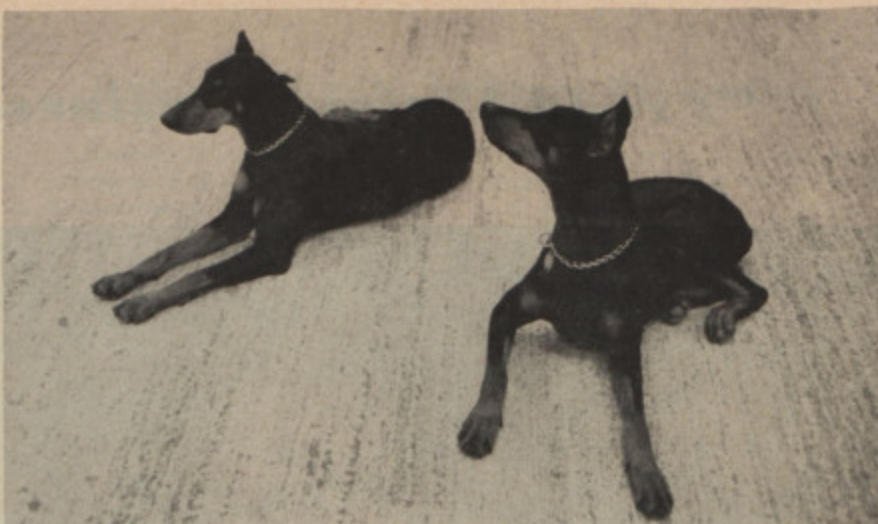
Only **\$8.95** postpaid

Monroe FOLDING BANQUET TABLES



If you are on the board of your school or church, or on the house or purchasing committee of your club or lodge, you will be interested in this modern, Folding Pedestal Banquet Table. Write for catalog & special discounts.

THE MONROE COMPANY 81 CHURCH ST. COLFAX, IOWA



Behan the animal went about less interesting chores. Behan explained, "This situation has been thought of and circumvented although I'll admit the efficiency of the animal is not improved. But, as you see, it is not destroyed."

How about a dishonest former handler returning to a store? Behan answered flatly, "If the man with the lead tells a dog I trained to attack me, the dog will. There is nothing emotional in this. The dogs are taught a job. Like a cop."

I watched the Macy dogs practice what Behan had preached on the hottest night of the year. The weather was a coincidence but apropos because Macy's had tried dogs before and it had been a dismal failure. The dogs were German shepherds and they simply could not stand up under the heat of the mammoth building. The experiment was renewed with Doberman pinschers when in a five month period no less than 15 nocturnal prowlers looted the store with degrees of success ranging from a few shoes to 21 fur coats valued, wholesale, at between \$500 and \$700 each.

Frank Fay, head of Macy's protective unit, and a former agent-in-charge in FBI offices in New York and Chicago, decided to augment his force with dogs. Behan was consulted and the lighter-coated Dobermans were selected for the new experiment.

The dogs have the finest residential quarters on 34th Street, living in possibly the only canine penthouse in the land. The entrances bear the ancient warning in foot high letters, "Beware of the Dogs." The animals are named with a touching regard for their commercial possibilities in newspaper captions or stories like this one. One male is named "Red Star," which is the Macy insignia, too; the other is "Cash," which is what Macy's sells for, only. The girls

are "Mom" (Macy's Own Merchandise) and "Suzy," Macy's own merchandise in the perfume department. All purebreds, they are between two and three years old and all have the same daddy. "Cash" and "Mom" are twins. "Suzy" recently presented Macy's and "Red Star" with seven delightful puppies.

"Chuck" Shellenberger, an ex-cowhand and the man who took the month course at Canine College, handled "Mom" during the demonstration. Steve Muller, a regular guard now working with the dogs, controlled "Red." "Suzy," as a recent mother, got the night off and "Cash" joined us later. The culprit for the evening was an ex-Holy Cross All-American, Angelo Maglio. Mr. Maglio hid himself somewhere in a pitch black storage space and the two dogs were unleashed to patrol the floor, an area 300 by 150 feet, crammed with row upon row of merchandise piled 15 feet high.

As soon as the dogs were freed they whipped down one aisle, and back another. They could obviously patrol the entire area in one fiftieth the time it would take a man. They moved with incredible swiftness and quiet until, suddenly, bedlam broke loose. They had treed Mr. Maglio in a crate 15 feet off the floor. They were barking and leaping to get at him, slithering on the smooth floor as they landed after each leap. When we arrived, "Red" was reconnoitering, searching for some route over the piles of packages that would enable him to launch himself into the crate sheltering Maglio. Now the training took over, replacing instinct:

At a word both animals sat. They were terribly excited and they growled and barked at Maglio as he climbed down but they remained on their haunches, although you could see it was sheer torture for both. Maglio, with hands raised, was marched off the floor, the dogs trot-

ting at his side, were growling occasionally.

Later, dressed in proper protective clothing, Maglio again was caught, and this time he tried to run for it. "Cash," who had replaced "Red," fastened his teeth in Maglio's padded right arm and hung there as the ex-footballer swung him in vicious, jerking circles. The dog was furious but when Mr. Shellenberger arrived the excited and angry animal released Maglio at a command. Maglio was put up against a wall, hands raised, and Shellenberger went through the entire ritual for "Cash's" benefit. "Stand there, fellow," he ordered Maglio. "I'm going to make a phone call. If you move the dog will go after you. Then, turning to the still-excited "Cash" panting at his side, Shellenberger ordered, "Watch him!"

As Mr. Shellenberger disappeared, Maglio stood facing the wall, glancing over his shoulder at "Cash." Maglio moved a step and "Cash" warned him with a growl but otherwise sat watching. Suddenly, Maglio made a break and before he had completed three steps the 90 pound Doberman had hurled himself into the air and clamped his huge jaws on Maglio's right arm. Always the right, or weapon, arm. The dogs heel to the handler's left and attack to the right.

We moved to the toy department where "Red" had been staked out on a hobble. Here the problem was to see how close Maglio could approach the dog without alarming it. Taking full advantage of the counters, the full-sized detachable houses, and other displays, Maglio sneaked slowly and silently through the dark area. He covered about 50 feet before he was discovered. He was fully 100 feet from "Red."

Mr. Maglio had given these dogs a rough evening, yet for my benefit as proof of their extraordinary control, he handled one of the animals briefly. However, Mr. Fay as a rule will not permit Maglio near the animals for 24 hours after a serious workout. Then Maglio controls dogs that were trying to chew him up the night before.

"Now we'll show you something that makes the dogs invaluable if they never spotted a prowler," Fay said as we took "Red" and "Mom" down a few flights of stairs. They were unleashed at the door and immediately whirled off on their fast, thorough patrol. In a few seconds they were barking wildly and we found them milling before a counter. I couldn't see what attracted them until Fay flashed his light and disclosed a thin column of lazy smoke, about the thickness of a cigarette ex-

Performs 7 Mailing
Operations
Automatically
In An Area
Only 5'x10'...

CUTS COSTS 80%

IT'S AMAZING!
A WHOLE MAILING DEPARTMENT
IN ONE MACHINE!



INSERTING & MAILING MACHINE

One unit does everything—gathers up to eight enclosures, inserts them in envelope, moistens flap, seals envelope, meters postage or prints indicia, counts the total mailing and stacks it ready for the mailbag. *Inserting & Mailing Machine* turns out from 3,500 to 4,500 pieces of finished mail per hour. Learn more about the machine—write for folder, *Reducing Mailing Costs by 80%*, or ask for demonstration.

INSERTING AND MAILING MACHINE CO.
PHILLIPSBURG, NEW JERSEY

GATHERS ENCLOSURES INSERTS INTO ENVELOPE SEALS ENVELOPE PRINTS POSTAGE INDICIA COUNTS & STACKS

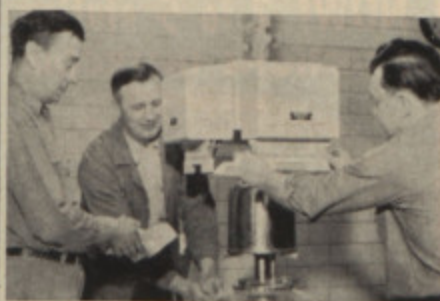
Policyholders will tell you...

Year in and year out
you'll do well with the
HARTFORD



See your Hartford Agent or your insurance broker

**HARTFORD FIRE
INSURANCE COMPANY**
**HARTFORD ACCIDENT
AND INDEMNITY COMPANY**
**HARTFORD LIVE STOCK
INSURANCE COMPANY**
Hartford 15, Connecticut



3500 ... less 25%

A mid-western meat-packing plant ... employing 3500 people ... after a year of testing, found that Mosinee towels dispensed from Sentinel Controlled-type Cabinets actually cut towel consumption 25%. Towels previously used, cost less per case ... but Mosinee Towels cost less to use ... so this plant has standardized on Mosinee "Controlled" Towel Service.

Write for free samples and
name of nearest distributor.

MOSINEE
Sulphate Towels

BAY WEST PAPER CO.
1102 West Mason Street
GREEN BAY • WISCONSIN
Division of Mosinee Paper Mills Co.

NOW in one compact unit!

Photorapid
copies anything in seconds!



SIMPLE—This newest development in photocopy machines, now available in one compact unit, 16½" x 23½" overall, with only one knob to turn, can be operated easily by any girl in your office.

HANDSOME—Glossy black with white trim — looks well anywhere.

ACCURATE—No matter how fine the detail, or what the colors, if you can see it in the original you will see it in the photocopy.

VERSATILE—Produces exact, letter-perfect copies up to 14" wide—whether the original is single or double sided, opaque or translucent, white or colored. Photorapid's legally accepted copies are ready for instant use, eliminating costly typing, hand copying and checking—or costly outside copying. With Photorapid you can make single side copies, double side (to reduce filing space), transparent copies for use as masters with diazo or blueprints, tissue copies for air mail—all at an unbelievably low cost. Also two-part models for copying from books without removing or injuring pages.

FAST—In seconds your finished, perfect copy is ready.

Write for details
Copy-Craft
Dept. N, 105 Chambers St., New York 7, N. Y.

UNIQUE ADVANTAGES

Closed tight when not in use—solution keeps longer. Non-metallic construction prevents corrosion.

**NOW! 2 to 5 station
TELEPHONE INTERCOM**



DIRECT-A-CALL

For small offices or direct "keyman" hook-ups in large firms... Every phone is a master station—you can call every other station with direct-signalling pushbuttons... Quiet, efficient intercom—no noisy "broadcasting"... No batteries or tubes... Install it easily yourself with a screwdriver... Handsome, compact phones of unbreakable grey plastic... Mount on top or side of desk... Power supply plugs into 110 volt outlet.

Complete 5-station system \$157
(Smaller systems lower priced)

Call your local dealer or write us direct:

Connecticut

TELEPHONE & ELECTRIC CORP.
78 Britannia St., Meriden, Conn.

Send information about Direct-a-Call to:

Name _____
Firm _____
Address _____

halation. It was curling up from behind the counter. The dogs find fire, no matter how infinitesimal the blaze, and in 99 situations out of 100 fire can do more damage than a platoon of sneak thieves.

The dogs, of course, cannot work alone beyond being staked out. They must have a handler but he need not be a professional dog man. In Macy's case Mr. Shellenberger, a nonpro, trained a month at Canine and passed on his knowledge to a half dozen men drawn from Macy's regular protective force.

The dogs understand 13 separate verbal commands and will obey hand signals which are accompanied by verbal orders. The vocabulary consists of Heel, Sit, Down, Stay, Come Here, Watch Him, Find Him, Stop, No, Okay, Jump, Up the Ladder, and Get Him. That last one—Get Him—is the command to kill or be killed and it is never used around the dogs unless the handler means it. In discussing this vocabulary with me, Mr. Fay and Mr. Shellenberger slowly spelled out "G-E-T H-I-M." It was an uncomfortable moment because after seeing what the dogs could do I was fairly certain they could spell small words, at least.

Perhaps a personal experience can indicate the attitude of the animals. "Mom" and "Red" were brought out on the roof and put through the hoops, over hurdles, and climbed the ladders while I watched, all the time talking to their handlers and to Mr. Fay. "Red" watched my cautious job of handling "Mom." For the remainder of the evening "Red" and "Mom" ignored me as they whizzed through the dark aisles on patrol. But, later "Cash" came into the act and he knew nothing of my acceptance by the handlers, so from the time he joined us until we finished he went about his work but always with one eye on me. Fay and Behan had assured me that the dogs would root out a former handler who had quit and turned crook. But I was wondering. Here, "Mom" had become my pal and "Red" accepted me. When we finished I reached out to shake hands with Shellenberger and simultaneously stopped my doubtful wonderings. My old pal, "Mom," saw my hand move toward her handler of the moment and she immediately growled and dropped into a crouch to leap at me. To paraphrase a famous Macy ad, "Nobody, but nobody, manhandles a Macy handler."

Basically, the dogs have no friends and only one boss. He's the man with the lead. Ideally, the dogs have no enemies until an enemy is pointed out to them. In fact, of course, every friend is suspect and every stranger

is an enemy but, by their training, the dogs will not attack any one who does not attempt to flee or harass them. A man in flight will be attacked only about the right arm unless a more deadly command is issued. On this score the record to date is perfect. There have been no incidents.

Dobermans and German shepherds are the most popular breed in protection dog training. However, Airedales have been trained successfully. So have those lovely old friends of the firemen, the Dalmatians. I.B.M. uses these firehouse favorites. In Behan's estimation they are all good and the determining factor (after the company president's personal choice) is the weather and the job. Heavily furred animals are handicapped in warm situations, have an advantage in cold ones. They are all purebreds, so far.

Here was a shocker—all purebreds—after all we had heard about mutts being smarter. On that topic Behan says, "Purebred dogs are not dumber than mutts. Thoroughbreds are expensive so they are frequently coddled into a state of near-idiotcy. Mutts learn quickly that life is real and life is earnest and the quickest way to a handout is to be amusing. Both types reflect their environment.



Therefore, given equal basic intelligence and equal environment there is absolutely no difference between a mutt and a blue blood."

But the rich men and the stores all use purebreds. Why?

"That's easy," Mr. Behan laughed. "The purebreds are to show the friends of the management, not the burglars. The purebreds look better, that's all."

So, if you are contemplating robbing Macy's or Jordan-Marsh you can be sure you will be captured, and possibly chewed up, by an aristocrat. It will be something to tell the boys in the cell block: "The cop that caught me was something. His old man took Best-in-Show at Madison Square Garden."

END

ELECTRICITY'S GOAL: 3 *times as much*

THE NATION'S 700 privately owned electric utility companies—a \$25,000,000,000 investment today—plan to triple this investment in the next ten years.

They expect to spend \$50,000,000,000 to give American factories and homes more and better service.

Electric power has been growing at almost ten per cent each year since the start of the century, or three times as fast as the average growth for all industries. Ralph J. Cordiner, president of the General Electric Company, says electrical manufacturers must now plan to build by 1963 as much equipment to generate, distribute and use electricity as has been built in the past 75 years.

This projected expenditure will speed a construction program which, from 1948 to 1952, cost \$10,800,000,000—the largest dollar expansion of any industry in that period—and gave us 42 per cent of the world's total supply of electric power. Russia, second largest producer, has only one fourth as much, a fact which figures mightily to our advantage in defense strategy.

Vitality of this growth is shown by the jump in capacity to produce. In 1946, for instance, generating capacity of the industry was 50,316,621 kilowatts. Last year it was 82,117,000 kilowatts, and this year the figure will be about 91,000,000.

By December, 1955, capacity is expected to reach 118,000,000 kilowatts—comfortably beyond the 116,000,000 kilowatts that the Office of Defense Mobilization, charting the expansionary trends of the nation's vital industries and relating them to defense needs, has fixed as the goal. By 1957 the figure is expected to reach 125,000,000.

How much actual power this capacity will produce by 1963 is in the lap of science, because, over the years, less and less generating capacity is needed to increase energy output. In 1920 each kilowatt of installed capacity in steam plants generated an average of 2,633 kilowatt-hours. Last year this figure reached 5,072.

If each kilowatt of capacity could be kept busy every hour of the year, maximum generation per kilowatt today would be 8,760 kilowatt-hours. The ratio of actual to maximum possible generation is now 58 per cent versus 30 per cent in 1920.

Two things have been largely responsible for this improvement. Now generating and transmission equipment is more reliable. This, with integration and interconnections between electric systems, has reduced the excess capacity required for emergency or reserve. Second, better and more numerous electrical appliances have prolonged and made more uniform the demand for electricity throughout the day.

Television alone is estimated to be increasing purchases of power by \$200,000,000 a year.

At the beginning of this century, 583,000 users paid \$85,700,000 for electric power. Last year the industry took in \$6,100,000,000 from 48,500,000 customers, who used 342,524,000,000 kilowatt-hours. The average home now uses 2,200 kilowatt-hours a year as com-

pared to 900 kilowatt-hours as recently as 1939. With more appliances in use, the residential drain on electric power is heavier each year. Industrial use, while growing, too, is using less, percentagewise. In 1926 industry used 57 per cent of the total output, today takes only 49 per cent.

Sales by 1963 will zoom to \$13,000,000,000, says Elmer L. Lindseth, president of the Cleveland Electric Illuminating Company. He predicts that electricity's gargantuan increase in generating capacity in the coming decade will be achieved with only "modest increase" in the selling price.

Several factors—including improved economy in the use of manpower (315,000 employees) and new methods in planning, design and construction of plant—have made it possible for the private electric companies progressively to reduce the cost of their product over the past two decades. In 1926 the average rate per kilowatt-hour for residential use was seven cents. Now the average is less than three cents. Similarly, the price which industrial users pay has decreased from 1.49 cents per kilowatt-hour in 1926 to 1.01 cents today.

Meanwhile, the bold and intelligent planning which enabled private power to swell its production muscle in the postwar period is evident in the steps which investor-owned utilities have taken to transform the dream of atomically generated power into reality.

However, technical problems to be met before commercial electric power can be derived from nuclear fission are great. This aspect of the power story still belongs in the cloudy category of things to come.

For the most part, electricity's present expansion plans are laid in the more concrete world of hydro and steam plant generation. Energy generated by internal combustion engines is only one per cent of the industry's annual output. Steam accounts for 72.7 per cent and hydro 26.3 per cent. Steam-generated electric energy, oddly enough, is gaining at the expense of hydro generation. In 1920, steam accounted for 60 per cent and hydro 40 per cent.

While expanding facilities at the fastest rate in its history during the past decade, private power was meeting record competition from government and cooperatively owned utilities.

The federal government got into the power business in a big way during the Roosevelt administration. This activity is reflected in figures showing how the nation's power supply is generated. Investor-owned utilities are generating about 81 per cent of the total now, while government owned and cooperatively owned utilities account for the remainder. In 1920 the ratios were 96 per cent and four per cent.

There are signs now that the nation's thinking on power is swinging back to private industry. As the pendulum moves, private power is going forward with plans to give America the energy it needs to maintain the world's most robust economy.

END

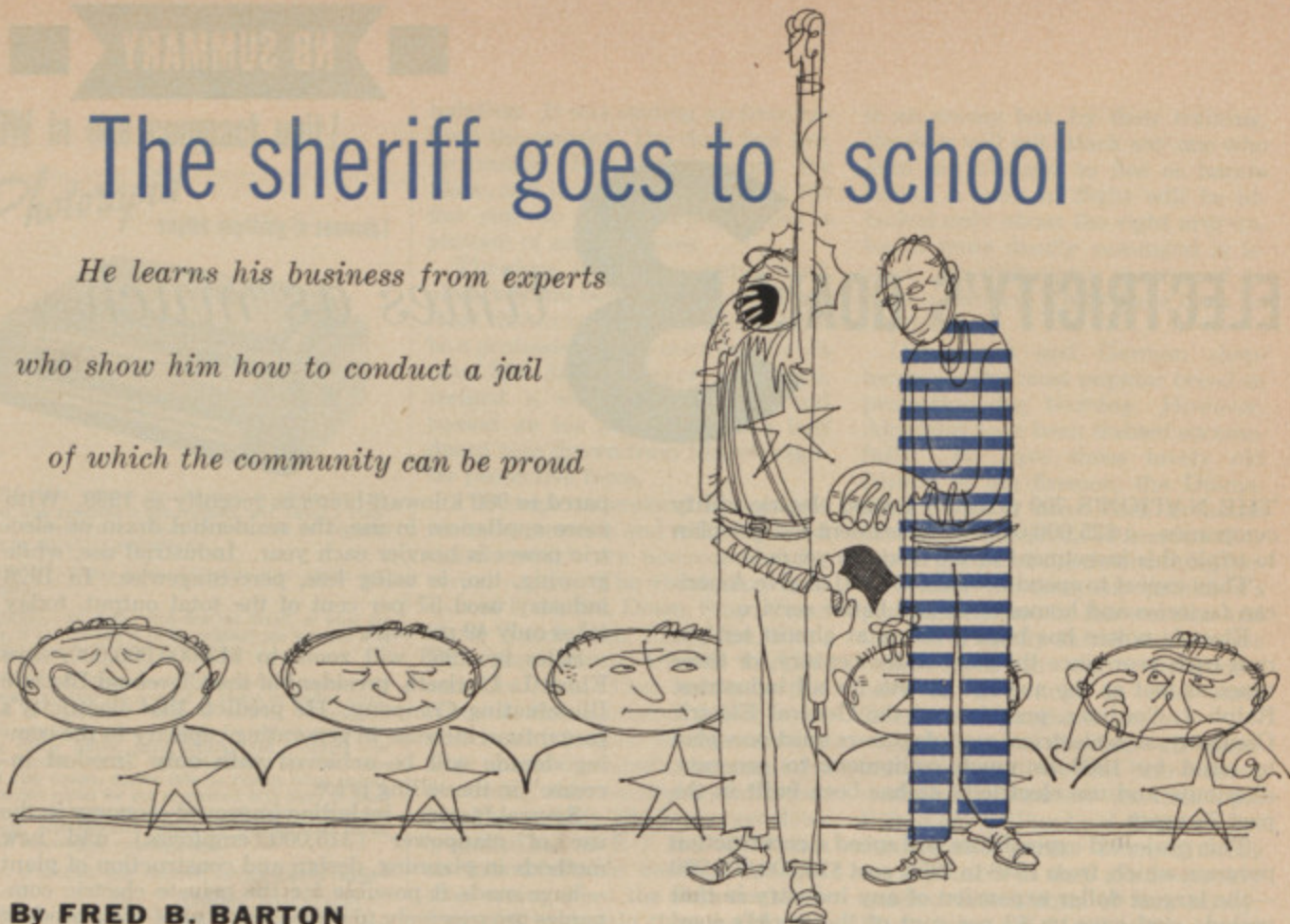
—PAUL HENCKE

The sheriff goes to school

He learns his business from experts

who show him how to conduct a jail

of which the community can be proud



By **FRED B. BARTON**

THE SHERIFF relaxed in the third row. He was willing to be entertained, but he didn't expect to learn anything about being sheriff. The last election, giving him the county's largest plurality, proved his voters were satisfied. His jail was all right. The sheriff could afford to feel expansive.

On stage four men were putting on a 20-minute playlet. A "prisoner," insolent and tipsy, was being questioned. The "desk sergeant" jotted down answers cheerfully and without system or discipline. A "deputy sheriff" stood carelessly by, his gun temptingly within the "prisoner's" reach. The "jailer" was inattentive.

Suddenly the sheriff in the third row sat upright. Hold on, he thought. On stage these men were doing something his own jailers were doing—and doing wrong. Maybe this schooling, the amazed sheriff thought, could help him after all. There was lots to be learned. He realized that now.

This took place in Oklahoma City. The sheriff in the third row was one of many who had gone there to attend a school for sheriffs put on by the U. S. Bureau of Prisons in conjunction with the National Jail Association. When a lesson is to be taught, federal jail inspectors act out a scene, carefully overdoing the point to be made. The sheriffs, or pupils, often react as the sheriff in the third

row did. They laugh a little. Surely no jail is ever quite this bad! Then they pause to think, and they realize that they often have made many of these mistakes themselves.

Such schools are conducted all over the country. At a typical four-day session the federal authorities demonstrate such things as the proper way to search a prisoner, a safe way to make an arrest, how to get a recalcitrant prisoner safely into a cell, how to transport dangerous criminals by automobile, and so on. The program also normally includes a day at the nearest federal prison.

School may begin like this: Chairman of a session will bring a "suspect" and ask six sheriffs to frisk him. Usually the search is inadequate. For example, after frisking a suspect, one peace officer was embarrassed to learn he had overlooked a saw blade stitched into a belt, aspirin tablets (representing dope) knotted into a necktie, money hidden in a pack of cigarets.

Later, in a local jail, another half dozen student sheriffs searched a cell which the federal experts had planted. The sheriffs blissfully overlooked hiding places for dope pills, knives and other weapons.

Criminals who expect the possibility of arrest can hide a hypodermic needle inside a fountain pen. They can fasten a handcuff key to body hairs. They can tape a small

pistol or knife to calf or groin. Jailers have died needlessly because of a careless search.

Dangerous men stop at nothing to regain their freedom. Unhappily, architects have sometimes conspired to make jail breaks easy. A western city has its jail on the seventh and eighth floors of a handsome courthouse. A single elevator takes prisoners and jailers to the entrance. A winding iron staircase is the only access to the floor above—easy for a single guard with a gun to head off any jail break. So thought the commissioners who bought the building.

There are no barred windows facing the street. "Bars look bad," said the architects. "No one's going to escape from that height."

One crew of prisoners escaped by swinging down to the fifth floor. Others unscrewed a steel panel and slid down a ventilating shaft to an unused stock room on the second floor.

Prisoners are clever. They have ample time and endless patience. Jail experts insist that money spent on adequate jail supervision pays off.

A small eastern city became frightened when four escapees within a month focused attention on its jail. Citizens sought the help of James V. Bennett, director of the U. S. Bureau of Prisons.

Mr. Bennett sent a jail inspector who found a single jailer working 24

hours a day for \$150 a month. The kitchen was filthy, jail records were inadequate, and health conditions were bad.

Today that jail is a model of cleanliness and efficiency. There are no disgraceful occurrences. And jailer and deputies have framed certificates showing they have completed the Bureau of Prison's correspondence course in jail keeping.

At first glance the Bureau of Prisons would seem to have little interest in the management of county and city jails. Most federal violators, however, begin their prison careers in local jails.

Federal prisoners awaiting trial or undergoing transfer are frequently placed in local jails. For this service the Bureau of Prisons pays the local authorities.

Unhappily, only one in every four, or about 800 out of 3,200 local jails, comes up to federal standards of security, cleanliness, safety for the prisoner against harm from his own mates, and other essential details.

Many well intentioned communities neither know nor care what goes on inside their jail—until things reach the scandal stage.

Jails often are nobody's business. Every civic group has its committees to lure new industries. Yet rarely is there a committee to check facilities and conditions at the local jail. Who cares?

First the citizens care, or ought to. Bad jails mean danger to the community. The sheriff cares, too, or ought to. His life and career are at

"Profits are the food which supports the life and growth of our business population, just as wages provide the food which nourishes our human population. And if too much of that food is taxed away, those populations will sicken and wither from malnutrition."

—Benjamin F. Fairless

stake. Let a drunk die, maybe while in a diabetic coma, and there's ugly publicity.

Let a depressed prisoner commit suicide, and fingers point at the sheriff who lets such things happen in his jail.

Most peace officers are proud to be given a chance to go to school and learn their duties and improve their methods. A good jail properly supervised is, like a park, a civic improvement. No town wants a jail of which it has to be ashamed. **END**

Steel When Needed

for the makers of
"RALEIGHS"
"VICEROYS"
"KOOLS"



Steel framework for new plant addition at
BROWN & WILLIAMSON TOBACCO CORPORATION,
Louisville, Kentucky
OSSIAN P. WARD,
Louisville, Kentucky: Architect
STRUCK CONSTRUCTION COMPANY,
Louisville, Kentucky: General Contractors
McKINNEY CONSTRUCTION COMPANY, INC.,
Louisville, Kentucky: Erectors
INTERNATIONAL STEEL COMPANY:
All Structural Steel

Meeting the construction schedule for this plant-expansion project left no margin for delay. Because meeting demands for their fine tobacco products—hitting new highs saleswise month after month—made an immediate increase of productive facilities a "must" for Brown & Williamson Tobacco Corporation.

That in turn demanded delivery on-the-double of structural steel. And that's International's *specialty!* Each

shipment of the 340-ton order was on the job, timed to meet erection deadlines. Each reached its destination in good order, exactly as ordered. Within two weeks after International's first delivery, this big tobacco plant was growing . . . *fast!*

Quick, accurate fulfillment of structural steel contracts . . . with economy always a prime consideration . . . is one of many steel fabrication services offered you by International. So, whatever your needs or however tough your particular problem, write and tell us the details. No obligation, of course.

1962 EDGAR ST. • EVANSVILLE, IND.



INTERNATIONAL STEEL COMPANY

SAVE ON YOUR TAXES

Did you know that if you pay, right now, some of next year's deductible expenses you might save some money on your 1953 income tax?

If you haven't already seen it, turn back to page 74 and read "Tax Timing Can Save You Money," by Walter Ross. You'll find it interesting and useful.

It's one of our new, short features, an NB Summary that makes

Nation's Business *A Magazine for Businessmen*

ARMY SELLS MORE SURPLUS

More than \$2,000,000 worth of war-worn equipment has been sold at disposal center in Korea

of Korea Army, or by any United Nations army or agency in Korea, it is not sold. Also excluded from sale are nonferrous metals, heavy ferrous metals and office machinery. The Army considers these worth shipping to the States for scrapping.

Surplus goods which pass the screening test are advertised for sale on a sealed-bid basis. A list of available items is drawn up three or four times a week and released to more than 100 potential buyers.

Vehicles, spare parts, clothing, field equipment, batteries, boots, fire hose, cargo netting, tents and medical kits are a few of the many items advertised.

Commanders of all U. S. Army installations in Korea are required to inform the property disposal office when salable items of scrap and salvage become available.

First Lt. Angus E. Wootten of Washington, D. C., contracting officer for the disposal office, explained that if the goods are to be sold in Korea only, "due to military necessity," the sealed bids are opened 15 days after they are first advertised; if they are offered on a world-wide basis, 45 days are allowed before opening. Lieutenant Wootten pointed out that if the Army needs the space where the goods are stored, then they are sold in Korea only.

"We usually can't afford to wait 45 days to clear the area," he said.

It is not unusual for buyers to bring baskets full of Korean "hwan" into the property disposal office as payment for large purchases. This is understandable, in view of the current hwan-to-dollar conversion rate of 180 to one.

Articles like tires and trucks are broken down in small lots "to give all bidders a chance." Several thousand Japanese trucks which have been on loan to the ROK Army will be sold this way, according to another Army spokesman.

A group of 100 trucks will be offered every four days, which means it will take about eight months to dispose of all the vehicles.

A lot of 60,000 threadbare tires

was sold that way, too. The Army said this was done "to give both big and small buyers a chance." Officers at the disposal office were surprised by the use to which the tires were put. The buyers did not use them for vehicles, but as factory fuel.

On a similar sale involving 88 Army sedans, the chief property disposal officer was required to complete 43 contracts, and in the process he had to sign his name 1,476 times.

Surplus materiel is divided into three classifications — waste, scrap and salvage. When it is opened to bidding, all buyers are given a chance to inspect the property before they submit their bids, so they can tell the condition of the goods.

All surplus goods are sold on a "where is—as is" basis. Under this system the purchaser picks up the material where it is located, thus saving the Army the cost and time of transporting it.

On the day the bids are to be submitted, the property disposal office in downtown Pusan resembles the New York Stock Exchange on a busy morning. Hundreds of Korean businessmen mill about the spacious bidding room, some gathering in small groups to discuss the impending sale.

Lieutenant Wootten logs in all the bids and accepts 20 per cent deposits. At a pre-established time the bidding is closed, and nervous tension grips the buyers.

After all the bids and the deposits have been checked, Lieutenant Wootten determines the top bids. Successful buyers surge forward to complete the sale, while the rest slowly leave the room.

The scene is a familiar one to the men who staff the property disposal office, for the doors of the office are opened every day for a new sale.

The Army says the cessation of hostilities in Korea has, if anything, increased the scope of the surplus disposal operation in the Far East, and particularly in Korea. Nonmilitary items available for rehabilitation are being sold as soon as they are declared surplus.

END

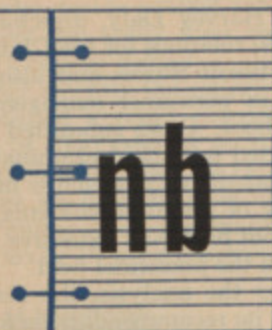
THE sale of surplus property by the U. S. Army in Korea has become big business.

Since its activation early this year, the Korean Base Section property disposal office at Pusan has sold more than \$2,000,000 worth of "uneconomically repairable" surplus equipment, ranging from truck tires to jungle hammocks. South Koreans make up the bulk of the purchasers.

The disposal office is operated by two officers and an enlisted man, with the aid of ten Korean clerical workers. Operation is authorized by the Federal Properties and Administrative Services Act of 1949, a measure which gives major Army commands the right to dispose of surplus property at any time they see fit.

There are checkreins, however, on what can and what cannot be placed on the selling block. Before any item can be offered for sale it must survive a 90-day screening process, terminating in the Department of Defense and other high-level government agencies.

If a particular quantity of material can be used by any other branch of our armed forces, by the Republic



notebook

Water, spirit, and Batesville

BACK in 1938 the worried businessmen of Batesville, Ark., a somnolent little city in the Ozark foothills, held a meeting to decide what might be done to keep the town from dying on the vine. Like the town, the meeting seemed to be dying, when Fred Livingston, an insurance man, suggested a celebration. Although there seemed to be little to celebrate, the town accepted the suggestion.

Among the town's assets was the White River and there, following out the Livingston suggestion, Batesville staged a water carnival, complete with bathing beauties, boat races, and aquatic demonstrations backed up by a parade.

Some 5,000 visitors lined the river banks to watch the races, to admire the beauties who competed for the title Miss North Arkansas and to witness the crowning of Queen White River in a local movie house.

Inspired by this success, the town made the carnival an annual affair. Pushed by the Batesville Young Business Men's Association, it built a 10,000 seat concrete stadium on the river bank where spectators might watch the races in comfort and opened its homes to visitors whom the local hotels could not accommodate.

Closed down during World War II, the carnival was revived in 1948 and is now billed as the "Southwest's Greatest Water Show."

Started as a trade stimulant, the affair has been extended to a three-day run and still includes the two beauty revues—with the winners in each event awarded all-expense tours to New York City.

Some of the nation's top speedboat drivers now compete for more than \$1,200 in prize money; there's a grand ball, featuring a nationally known dance band; two big parades, band concerts, golf tournament, fishing derby, barn dance, square dance, music festival, air show, fireworks display, diving and swimming exhibition, surf board riding and other attractions.

Last year, the Batesville Police Department checked license plates on visiting cars from 37 states; more

than 50,000 crowded into Batesville during the three days.

The carnival is still conducted by the town's citizens—just as it was when it started. Batesville folk volunteer their services, their talent, time and money.

Batesville now is the gateway to the vast White River playground area, which includes the huge Norfolk and Bull Shoals lakes; it boasts two beautiful parks, a college, a modern business district, a new swimming pool, an airport, a fine public school system and well kept homes and churches.

It's come a long way from the sleepy country village of 1938.

The formula: Take a wonderful spirit of cooperation, some native good sense and the ability to cash in on a natural attraction, add a score of bathing beauties—and plenty of cool, clear water!

Mix well—and you have Batesville, 1953!

House that Ohio built

JUST to prove the diversification of its industry, Ohio has built and furnished a house entirely with the state's own products. Located on the state fair grounds in Columbus, the house is a reproduction of the home of President William Henry Harrison at North Bend, Ohio.

The place is called Ohio House. Its 12 rooms contain among other things: glass from Lancaster and Toledo; a stove from Hamilton; refrigerators from Dayton; rubber items from Akron; a vacuum cleaner from Canton; pottery from Crooksville; furniture from East Palestine, Celina, Columbus, and Springfield; lawn furniture from Cincinnati; cutlery from Fremont; plastic wall panels from Dover; plumbing from Tiffin; lighting from Cleveland and Mansfield; a piano from Cincinnati; custom-built lamps from Columbus; canned foods from Archbold; dinnerware from Steubenville; bed springs and mattresses from Akron; matches from Wadsworth; insect killers from Cleveland; paint from Columbus; and grass seed from Marysville.

One complaint: Although Ohio has 3,700,000 acres in timber and

GLOBE SPRINKLERS

FIREMEN EVERY 10 FEET

HOW DO AUTOMATIC SPRINKLERS SAVE?
Big reductions in the cost of FIRE insurance result after installing GLOBE Automatic Sprinklers. Annual savings often pay for the system in 4 to 8 years. Thereafter, these yearly savings accrue to you. A phone call brings full details.

GLOBE AUTOMATIC SPRINKLER CO.
NEW YORK . . . CHICAGO . . . PHILADELPHIA
Offices in nearly all principal cities

THEY PAY FOR THEMSELVES

hang 'em~

2nd cut
filing costs
50%

NEW
STYLE
folders
hang!

OLD
STYLE
folders
slump!

Oxford

PENDAFLEX®

HANGING FOLDERS

Send for free CATALOG Oxford Filing Supply Co., Inc.
92 Clinton Road, Garden City, N. Y.

NAME _____

ADDRESS _____

CITY & STATE _____

"Just what I wanted, Dad" ... and she meant it!

Startling, men? Not a bit. It can happen . . . and it *always* happens when your gift is a United States Savings Bond.

And no wonder. Everybody wants Savings Bonds—your wife, your daughter, son, grandchildren — everyone whose future is important to you. A Bond is the perfect gift—the gift that grows with the years.

You can't go wrong—no styles, sizes, or shades to worry about. No question of fit. No question of whether they can *use* it. Savings Bonds make the future worth waiting for!

Your bank or postoffice is shopping headquarters for Bonds. And while you're there, ask for the attractive new Savings Bonds gift folder that's free with every Bond you buy.

A Savings Bond is a share in America—a head start on happy, secure tomorrows. So for those important names on your gift list—the ones you really care about—make this a Bond Christmas. Give them the present with a *future* . . .

U. S. SAVINGS BONDS

This advertisement is contributed as a public service in cooperation with the Treasury Department by

Nation's Business

was once famous for its hardwood, lumber from the Pacific northwest was used for the siding.

"There was no need for that foreign timber," say the Ohio lumbermen. "Plenty of houses are built with Ohio wood. When President Harrison built his house at North Bend, he used it."

Atomic safety

FROM California comes word that an "atomic" safety device is now protecting the hands of punch press operators at the San Francisco maintenance base of United Air Lines. First of its kind for heavy machinery, the device is said to open a new field of industrial safety.

Operators of the punch press wear wristbands containing radioactive crystals. Three Geiger tubes enclose the punching area—one at the front and one on each side of the zone where injuries can occur. If hands stray into danger, the tubes pick up radiation from the wristbands and halt the machine instantly—in mid-stroke if necessary.

As a further safety measure, the press refuses to operate unless the workman wears the wristbands. Within 15 seconds after the bands are withdrawn, the machine automatically shuts off.

Fun on wheels

A "PLAYMOBILE," carrying portable recreation equipment, brought summertime fun to youngsters in Detroit areas where playground facilities were inadequate. A local service club provided the tractor and trailer unit which carried swings, seesaws, sand boxes, a portable basketball standard, handcraft equipment, a record player, horseshoes and stakes and street shower equipment.

Manned by a driver and two experienced recreation leaders paid by the city, the machine operated on a five-day schedule of two three-hour stops per day. Attendance figures indicated that the kids loved it.

Wanted—others' problems

UNLIKE the rest of the world which is trying to avoid them, the Department of Business Administration of the American University, Washington, D. C., is looking for personnel problems. In collecting them, it also hopes to perform a service for business.

The university seeks actual business problems in the field of supervisory functions or human relations as case study material for its course in "Supervision in Industry," taught

by J. Harvey Daly, director of industrial relations for the Giant Food Department Stores and also a lecturer in personnel management at the school. Cases submitted will be subjected to critical examination by the student body, which is made up largely of graduate students, many of whom have had extensive experience in the personnel field.

After the analysis, the class will report its recommendations for solution to the cooperating firm.

Concerns wishing to avail themselves of this unusual service should submit their problems to the American University, Washington, D. C., attention Prof. J. Harvey Daly, 1901 F Street, N.W., Washington 6, D. C.

Feathered contraband

OFFICIALS of the United States Bureau of Customs are getting the bird—but literally. In the past two years they have, in fact, gotten 10,000 of them.

Regulations of the United States Public Health Service drastically restrict the importation of birds of the parrot family, because infected parrots and parakeets are known to spread a fever which causes serious illness in humans. This has led to bird smuggling on an enterprising scale.

Domestic breeders and sellers know that the smuggling is making inroads on their own legitimate businesses.

Most of the smugglers operate along the border of the United States and Mexico. Some law violators have tried to carry the birds across the border in cages. Others have hidden parrots beneath the hoods of automobiles. One smuggler sewed up several cages in the upholstery of his car, but was arrested when an alert inspector heard the muted complaints of the feathered contraband.

College for clerks

MORE and more applicants for retail jobs in southeastern Ohio are carrying diplomas from the School of Retailing at Rio Grande College, in Rio Grande, Ohio.

The college started its academic training for clerks in 1950 because "retailing offers a wider field of opportunities than any other type of enterprise."

First offered was an "in campus" plan open to high school graduates. Subjects included in the two year course are Principles of Retailing, Commercial Law, Display and Business Mathematics. Students also get "laboratory training" in stores off the campus or in the campus retail store set up for the purpose. Gradu-

ates who decide against retailing as a career can apply their credits toward a college degree.

More recently the college has also established a retail extension program of short courses in towns and villages up and down the Ohio River. Classes are held in stores or conference rooms where merchants gather for a six or 15 week course.

Lack of hospitality

THE HEDGEHOG and the porcupine have been enlisted—vicariously—in the long war that owners of downtown city property have waged against pigeons and starlings that roost on their buildings, according to the American Public Works Association.

Observing that no starling ever sat on a porcupine, owners are now using narrow steel bars covered with needle-sharp prongs along building edges and other favored roosting places. So far it seems to work.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (TITLE 39, UNITED STATES CODE, SECTION 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF NATION'S BUSINESS published monthly at Greenwich, Connecticut, and Washington, D. C., for October 1, 1953.

1. The names and addresses of the publisher, editor, executive editor, and business manager are: Publisher, Chamber of Commerce of the U. S. of America, Washington, D. C.; Editor, Alden H. Sypher, Washington, D. C.; Executive Editor, Paul McCrea, Washington, D. C.; Business Manager, John F. Kelley, Washington, D. C.

2. The owner is: Chamber of Commerce of the United States of America, said body being an incorporated organization under the laws of the District of Columbia, its activities being governed by a Board of Directors. The officers are as follows: President: Richard L. Bowditch, President, C. H. Sprague & Son Company, Boston, Mass. Chairman of the Board: Laurence F. Lee, President, Peninsular Life Insurance Company, Jacksonville, Fla. Chairman of the Executive Committee: Dechard A. Huley, President, Lone Star Gas Company, Dallas, Texas. Treasurer: Dean H. Mitchell, President, Northern Indiana Public Service Company, Hammond, Ind. Executive Vice President: Arch N. Booth, Chamber of Commerce of the U.S.A., Washington, D. C. Vice Presidents: Clyde B. Dempster, President, Dempster Mill Manufacturing Company, Bentrice, Nebr.; Powell C. Groner, President, Kansas City Public Service Company, Kansas City, Mo.; Russell C. Harrington, Resident Partner, Ernst and Ernst, Providence, R. I.; Carl N. Jacobs, President, Hardware Mutual Casualty Company, Stevens Point, Wis.; Clem D. Johnston, President, Roanoke Public Warehouse, Roanoke, Va.; Harlan I. Peyton, President, Peyton Investment Company, Spokane, Wash.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona fide owner.

JOHN F. KELLEY

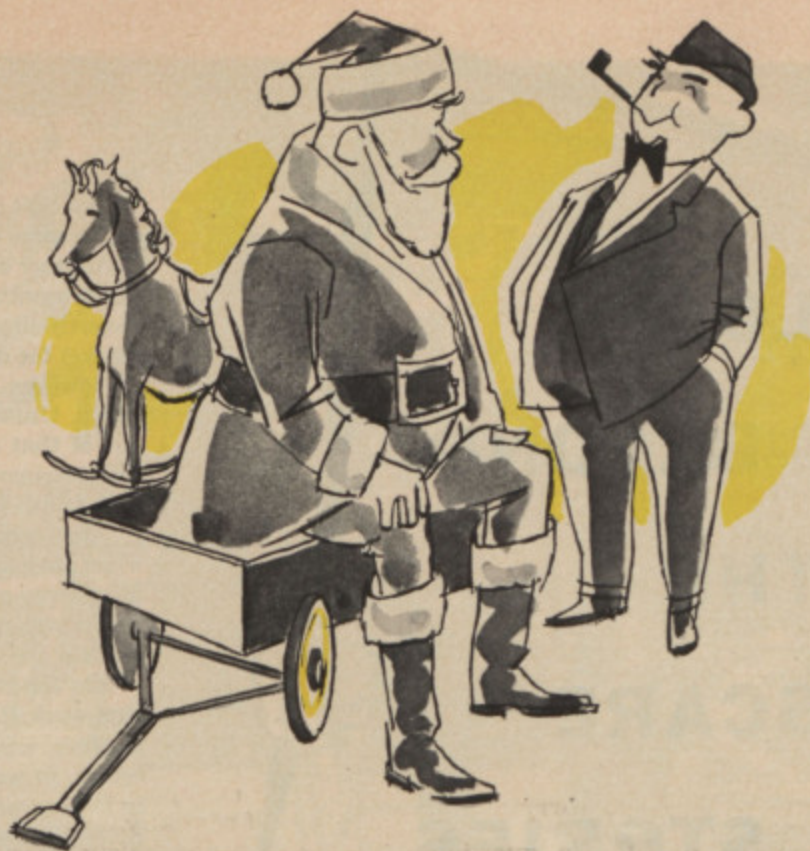
Signature of Business Manager

Sworn to and subscribed before me this 10th day of September, 1953.

(SEAL)

WILLIAM A. CREVELING

(My commission expires Nov. 14, 1953)



Pete Progress and the 365-day Santa Claus

"Well, now," boomed Santa, "what can I do for you, Mr. Progress?"

"I'm going to pull a switch," laughed Pete Progress. "What do you want for Christmas, Santa?"

"The question's easy but the answer's tough. I want a year-round job of being Santa instead of only a few weeks. But I guess I'd look kind of silly in this outfit come July."

"You don't need a uniform to play Santa Claus," said Pete. "I've got just the place for you and it's not the North Pole, either. I suggest you join the Chamber of Commerce."

"What's the connection, Pete? Does it raise reindeer?"

"No, but its members have the Christ-

mas spirit all year long. These fellows believe that it's more rewarding to give than to take. There are Chambers all over the country working hard to improve their communities, making them more enjoyable and profitable to live in. Chambers sponsor all kinds of civic projects — like conducting safety campaigns, improving the school, fire, police, sanitary and recreational systems, encouraging new industries to build, solving traffic snarls and — well, you go down there and you'll find out."


"Wow! This is a Merry Christmas."

"How so?" asked Pete.

"First time I ever got what I really wanted. Now I know it's going to be a Happy New Year."

Your chamber of commerce is working for you. Why don't you help them?





LOOK BEYOND THE SCARE STORIES

THIS COUNTRY was developed by adventurous men who strode toward the horizon confident that they could handle what they found there. If they found danger, they destroyed it recklessly.

That was too bad.

Today, although we have more of everything else than anybody, our domestic resources of danger are sadly depleted. To meet this scarcity we are now manufacturing synthetic dangers on which to nourish our spirit of adventure.

Nothing else seems to explain our insistence that depression is just around the corner. Because of the bounty all about us this is a difficult attitude to maintain. But we maintain it, thus presenting to the world the diverting spectacle of a people afloat on a sea of prosperity clutching at straws of gloom.

A favorite straw is the level of employment. This dropped a month or so ago causing such titillating mor-

bidity that few people had the heart to point out how, in the same month, *unemployment* also decreased.

Another straw is steel production. After running for many months at 100 per cent of capacity or higher, this recently dropped to 95 per cent, inspiring a brief bull market for dismay.

However, Benjamin F. Fairless, chairman of the board, United States Steel Corporation, took the thrill out of that one. Those weary of despair will find in his statement a sound pattern for backing optimism with facts. He said:

"Our economic weather men are entirely correct when they say that steel production has fallen off; but it seems to me that they have become so obsessed with this downward trend that they've lost all sense of proportion.

"On the basis of present orders, and barring unforeseen work stoppages, the American steel industry will produce, and will sell, more steel this year than ever before, in war or in peace, at any time in its history. In fact, present indications are that it will make about 7,000,000 tons more steel than it made in the all-time record year, 1951.

"Steel plants were never intended nor designed to operate regularly at 100 per cent of capacity. Historically the steel industry has always had to maintain a substantial reserve of capacity for use in times of great national emergency; and at such times it is able to run at 100 per cent only by resorting to the uneconomic use of marginal facilities, materials and manpower.

"Even during the wartime years of 1941-1945—when we were breaking our necks to produce every pound of steel that we could and when the plants of United States Steel alone were outproducing all the Axis nations put together—the average operating rate for the industry as a whole was just 94 per cent of capacity—or almost exactly what it was last month.

"But our total capacity in those days was much smaller than it is now; and even if our operating rate today were to drop as low as 81 per cent of present capacity, we would still be producing, and selling, more steel than we did all through those frenzied years of World War II.

"It seems to me that these fellows who are so alarmed by the recent trend in steel are a lot like the restaurant owner who was complaining to a customer that his business was terrible. The surprised customer said:

"'Look, Joe, every table in the place is filled and I've seen you turn away at least a dozen people while I've been sitting here.'

"'I know,' said the gloomy proprietor, 'but six months ago I was turning away three dozen.'"



THERE GOES SOMEBODY'S BIG IDEA

An architect selected insulating glass for comfort with big windows...

A plant engineer chose heat absorbing plate glass to reduce air-conditioning load...

A store owner asked for golden plate glass to reduce fading in window displays...

An office manager wanted patterned glass in partitions for light and privacy...

Demands for glass are as varied as people's ideas and requirements. There is clear glass, of course. Translucent glass. Even opaque. Colored glass. Tempered glass. Patterned glass. Double-pane and triple-pane insulating glass. And a big range of thicknesses, sizes and finishes.

The Libbey-Owens-Ford Glass Distributor carries these items in stock—as many as 3,000 items of flat glass—to take care of you as a businessman, a homeowner, a car owner. He's equipped to cut, edge and finish the glass as you want it. He or his Dealers can install it for you.

Libbey-Owens-Ford recognizes the indispensable function of Glass Distributors and Dealers. These men know their own communities—and they know glass. That's why we suggest:



FOR QUALITY GLASS, see your L-O-F Distributor or Dealer...

A Local, Independent Business



No other type of whisky in the world is as softly satisfying as a fine Scotch. And in White Horse, above all, Scotch whisky reaches pure perfection. Gentle, sunny lightness from the Highlands...rich full-bodied flavor from the Western Islands. A rare and subtle harmony! Have you tried White Horse?

since 1746

WHITE HORSE
of course!

BLENDED SCOTCH WHISKY, 86.8 PROOF. SOLE DISTRIBUTORS BROWNE-VINTNERS CO., INC., NEW YORK